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ETHICAL CONSIDERATIONS FOR **YOUTH MENTAL** **HEALTH** IN THE DIGITAL ENVIRONMENT

REPORT • Adopted in September 2025

IBC

International Bioethics
Committee of UNESCO

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SHORT SUMMARY

Building a resilient digital future for youth

Nowadays, children and adolescents connect, learn and play in digital spaces as naturally as they do in physical ones. The omnipresence of digital technologies in their lives brings remarkable opportunities, but also significant risks. Digital platforms have the potential to foster youths' development, learning and social connection. However, when use becomes excessive or problematic—for example, when social media is used to escape reality or when it compromises offline activities—screen exposure may undermine mental health and well-being, with pronounced effects among vulnerable groups. As digital tools and the challenges they bring both evolve rapidly, they demand an ethically grounded response from society as a whole.

At least 50% of 15-year-olds spend 30 hours or more per week using digital devices. Against this backdrop, this report by the International Bioethics Committee (IBC) examines the ethical considerations at stake, including how to safeguard children's and adolescents' autonomy while protecting them from manipulation, discrimination, cyberbullying, and other harms.

Through its recommendations, the Committee emphasises that striking this balance is a shared responsibility. It provides guidance to Member States, IT companies, caregivers and educators to promote the best interest of youth and strengthen digital literacy from an early age.

Half of
15-year-olds
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30+ hours weekly



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"Since wars begin in the minds of men and women it is in the minds of men and women that the defences of peace must be constructed"

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FOREWORD



Children and adolescents are the most digitally connected age group worldwide, with the International Telecommunication Union estimating that 79% of youth aged 15 to 24 use the Internet, a percentage 13% higher than the rest of the population¹. The digital environment increasingly permeates young people's daily lives, giving rise to unprecedented benefits and risks to their mental health and well-being. When designed and implemented with the rights and needs of children and adolescents in mind, digital tools offer significant opportunities for learning and social connection – from access to education, entertainment, and mental health services to new forms of civic engagement and self-expression. However, these opportunities also come with alarming potential harms, such as exposure to inappropriate content, cyber bullying and harassment, as well as the development of unhealthy habits and the incitement of violent and self-destructive behaviours.

While there is growing scientific literature on both the positive and negative effects of the digital environment, the present report by the International Bioethics Committee (IBC) applies a unique ethics and human rights lens to help us to critically understand the underlying challenges at stake. It is upon thorough ethical reflection that the duties that adults owe to children and adolescents, to act in their best interests, are clarified.

As governments worldwide start to recognise the challenges and take action, with many implementing or considering age-related limits on the use of social media, it is important to acknowledge that the problem's complexities demand a comprehensive and multi-stakeholder approach. From ensuring digital safety by design in the development of digital platforms and services for youths, to investing in digital literacy for all, including adults, all stakeholders—Parents and Caregivers, School and Health Professionals, IT companies and Government Representatives—have a shared responsibility to strike a careful balance between creating a safe and inclusive digital space for young people and respecting their autonomy and freedoms.

In addition, digital access is geographically uneven, and girls are disproportionately harmed by technology-facilitated gender-based violence. Therefore, we must remain mindful that the impacts of the digital environment are heterogeneous across gender, region, economic background and other socio-demographic factors.

1 <https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-youth-internet-use/>

This report serves as both a call to action and a roadmap for change. It reinforces the Social and Human Sciences (SHS) sector's commitment to building knowledge, expertise and guidance on the realities and challenges faced by young people globally, as also reflected in the UNESCO Global Youth Outlook whose first edition focuses on youth mental health in times of crises (forthcoming 2026). The report reminds us that many negative aspects of the digital environment are not accidental flaws but features by design and must be addressed by the international community to ensure a safe and healthy digital space. Our collective and immediate action is required to ensure that digital tools enable the healthy development of the next and future generations, rather than hinder it.

Lidia Arthur Brito

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UNESCO

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While the Committee has greatly benefited from these contributions, the final version of the report was not submitted to external speakers for revision and does not necessarily reflect their views.

Within the framework of its work programme for 2024-2025, the International Bioethics Committee of UNESCO (IBC) decided to address the ethical considerations for youth mental health in the digital environment.

At its meeting in December 2023, the Committee established a Working Group to formulate initial reflections on this topic and write a concept note for the report. The IBC met in Paris in September 2024 to discuss the concept note and expand its content into a preliminary report. As a result, draft chapters were written and compiled into a preliminary draft report. The draft report was presented during the 32nd Ordinary Session of the IBC and the 14th Session of the Intergovernmental Bioethics Committee (IGBC) in September 2025. The final version of the report was adopted by the Committee on 18 September 2025.

This document does not necessarily represent the views of the Member States of UNESCO.

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INTRODUCTION

1. In the contemporary digital age, children and adolescents are engaging with online resources to a greater extent than ever before. They are utilising digital tools for educational purposes, social interaction, and the investigation of their personal interests. However, these opportunities present growing concerns about the safety, privacy, and well-being of children and adolescents. The aim of this report is to use ethical and human rights frameworks to emphasise the need for safeguarding the mental health and well-being of children and adolescents who are exposed to the harms of the digital environment. In this report and in accordance with the United Nations Convention on the Rights of the Child (UNCRC)¹, a child or adolescent is considered “every human being below the age of eighteen years” [Article 1; UNGA, 1989].
2. All children and adolescents have a right to health, including mental health. Protecting this right is fundamental for the (psychological) well-being of children and adolescents. This right includes a right to adequate environments and resources that promote it (UNGA, 1989). Nevertheless, around the world, children and adolescents are increasingly experiencing higher rates and risks of mental health problems, such as anxiety, depression, addictions and other psychological problems. Among the many factors that can affect the mental health of children and adolescents, the inappropriate use of the digital environment and insufficient regulation of its contents stand out, as they can adversely influence emotional, cognitive, and behavioural development and functioning. In our contemporary societies, almost all children and adolescents live in digital environments, making the risks that these environments pose to their mental health a global concern (OECD, 2021a; 2024).
3. It is widely recognised that the digital environment provides access to information, health resources, and social connectivity to children and adolescents; offers several educational and social opportunities; may help develop their cognitive, emotional, communication and social skills; exposes them to human diversity, facilitates social connectivity and political action within one’s own community and across social spaces; and may improve access to mental health services and supporting resources.
4. However, excessive online engagement has been linked to an adverse impact on the cognitive, emotional and social development of children and adolescents; may enhance their risks for ill mental health; and may cause the worsening of pre-existing mental disorders. There is also an increased likelihood of exposure to potential risks, including cyberbullying, exposure to harmful content, and violations of privacy (ITU, 2022). Current research indicates that the context and content of children’s and adolescents’ online activities have a significant influence on their well-being.
5. The population of children and adolescents is highly heterogeneous in terms of mental resilience and vulnerability. Since they are differentially vulnerable to the impacts of the digital environment, both positive and negative, interventions must be sensitive to those differences and capable of protecting the most vulnerable. At the same time, they

1 The Convention on the Rights of the Child (CRC) defines a child as “every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier (Article 1). Thus, the term “child” covers small children and adolescents. The Committee on the Rights of the Child recognises that adolescence is not easy to define but takes as a reference the age between 10 and 18 years. However, UNICEF and WHO consider adolescence to be the period between the ages of 10 and 19 (UNICEF/WHO 2022).

must favour balanced lifestyles that promote and protect the integral health of children and adolescents. Interventions must be based on an approach that allows for both the avoidance of the negative effects of the digital environment on the mental health of children and adolescents, and the reinforcement of the positive ones (Holly et al., 2024). In addition, attention has been drawn to the fact that interventions should not increase the digital divide, which is clearly linked to serious forms of social exclusion worldwide.

6. Some scholars believe that the problem is “inflated” and “medicalised”—a transitory suffering of young people whereby the impacts depend not only on the digital environment but primarily on the user’s mental predisposition (Foulkes & Andrews, 2023). Others consider the available evidence sufficient to advocate for regulatory measures regarding the use of the digital environment by children and adolescents in schools and homes. Potential policies range from age-dependent outright bans to adaptively tuned situational interventions. The latter are the subject of current debates on the benefits of school-based emotional training (for teachers and learners) and on the increase in the opportunities for psychological care in schools (which is unlikely to scale in most corners of the world). Other protective factors, such as parental guidance and digital literacy, have also been considered as key intervention factors to mitigate the risks (Stoilova et al., 2021).
7. While debates about the impacts of the digital environment on the mental health of children and adolescents and ways to contain them continue to grow, many groups are increasingly concerned about how to protect the rights of children and adolescents in this environment. Although more data and evidence are needed to better understand the effects of the digital environment on their mental health, as well as the correlation of its negative impacts with poverty, local violence, barriers to family interactions, generational gap, lack of parents and caregivers for children and adolescents, and insufficient health care, which occur in many settings around the world, it is crucial to take all necessary actions to protect the rights of children and adolescents and promote the inherent goods of childhood and adolescence.
8. This report therefore aims to identify the complex interaction of children and adolescents with the digital environment and its impact on their mental health and analyse the related ethical challenges to promote the basic goods of children and adolescents and protect their human rights, offering recommendations on how those challenges can be addressed by all stakeholders. As the digital environment is a fast-growing field and new modalities of social use and entertainment constantly emerge, this report is committed to shedding an ethical perspective on these issues, trying to elucidate the responsibilities involved in protecting the best interests of children and adolescents.
9. This report considers the mental health and well-being of children and adolescents to be the fundamental ethical priority in the design, conduct, and governance of the digital environment. Mental health is an integral part of general human health and a necessary condition for a good human life. Therefore, it is protected by numerous international and regional human rights instruments, most fundamentally by the UNCRC, both directly and indirectly. The report also stipulates that there is a critical interdependence between the mental health and well-being of children and adolescents and the realisation of the intrinsic

goods of childhood and adolescence. These goods include trust, love, carefreeness, and the freedom to experiment with different identities, as well as the value of cultivating imaginative play and endless possibilities. The effective enjoyment of these goods allows children and adolescents to achieve flourishing, open-to-the-future childhoods and adolescence, as well as flourishing adult lives.

10. Furthermore, this report recognises that promoting the mental health and well-being of children and adolescents in the digital environment requires prioritising the intrinsic goods of childhood and adolescence and the fundamental rights of children and adolescents that ensure their realisation, under the principle of the best interests of the child. The report acknowledges that defining the principle of the best interests of the child is difficult. It is a threefold concept (a substantive right of the child, a fundamental interpretive legal principle, and a rule of procedure) that imposes a shared commitment and responsibility on all public, private and commercial actors to ensure the child's full and effective enjoyment of all the rights recognised in the UNCRC, as well as the child's holistic development (UNCRC, 2013a, paras. 5-6), by making the best interests of the child a primary consideration in all actions concerning children and adolescents (Article 3; UNGA, 1988).
11. This report argues that to ensure the best interests and rights of children and adolescents are respected in the digital environment, all stakeholders—including policymakers, digital companies, schools, healthcare providers, families, and others—must adopt responsible, accountable, and transparent practices to create an accessible, safe, inclusive, and meaningful digital world that effectively protects and promotes the mental health and well-being of children and adolescents. These policies should be created with the involvement of children and adolescents in the design and assessment of digital policies.
12. After defining the basic concepts on which we should consider these emerging ethical challenges –concepts such as digital environment, mental health and well-being, and social determinants of mental health– the report considers and ethically assesses the benefits and burdens of the digital environment from the perspective of the goods and rights of children and adolescents, guided by the Principle of the Best Interest of the Child and procedural safeguards, as they are stated in the UNCRC. Specific recommendations for different stakeholders to implement these normative principles in practice are offered at the end of the report.



BASIC CONCEPTS

II.1. Digital environment

13. Given its novelty and its rapid and continuous evolution and expansion, it is difficult to coin a concise and precise definition of the concept of the 'digital environment'. According to the UNCRC, the digital environment encompasses information and communications technologies, including digital networks, content, services and applications, connected devices and environments, virtual and augmented reality, artificial intelligence (AI), robotics, automated systems, algorithms and data analytics, biometrics and implant technology (UNCRC, 2021). In this report, digital environment is understood as all means of being and doing that rely on electronic content through digital devices, including generative intelligence and excluding robotics.

II.2. Mental health and well-being

14. Mental health is described by WHO as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2005).
15. Mental disorders are common in children and adolescents. Around 7% of the world's children (aged 5–9 years) and 14% of the world's adolescents (aged 10–19 years) live with a mental disorder. Around a third of mental disorders across all ages, have developed by the age of 14 years; half appear by the age of 18 years. Idiopathic developmental disorders, leading to developmental disability, are the most common type of mental disorder in young children, affecting 1 in 50 children (under five years of age) globally, and twice that number in Southeast Asia (WHO, 2022a).
16. It is important to distinguish mental health from *mental disorders*. According to the WHO, a mental disorder is "a clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour [...] usually associated with distress or impairment in important areas of functioning" (WHO, 2022a). Mental disorders are typically defined based on agreed-upon clinical thresholds using the International Classification of Diseases (ICD) or Diagnostic and Statistical Manual of Mental Disorders (DSM). This categorisation places individuals into either a disordered or a non-disordered group, which informs the selection of treatments and prognosis. The central aim of this categorical 'pathological' approach is to identify and address the underlying causes of disorders and to alleviate or manage symptoms through therapeutic interventions. Frequently, the diagnosis and classification of mental disorders are based on a limited 'Western' biomedical model of disease which has been widely challenged as it fails to account for multi-dimensional traits and for the multiple non-biological factors involved, including personal, social, environmental and cultural factors (Monaghan and Bizumic, 2023). Furthermore, the absence of a disorder is not sufficient for being mentally healthy. In contrast to this biomedical view, many cultures

conceptualise mental health in a holistic sense, emphasising mental wellness, or well-being and the interconnections between people and the environment.

17. The terms '*mental health*' and '*(psychological) well-being*' are often used interchangeably; however, they are distinct but related concepts. Psychological well-being correlates positively with general life satisfaction, and negatively with mental health problems. Definitions commonly include both feeling and functioning well, the experience of positive emotions, healthy social relationships, psychological resilience and the social and practical freedoms that enable individuals to fulfil their potential. But, while positive mental health and well-being are not identical, there is an informative conceptual connection between them. In this report, we use the term '*mental health and well-being*' as an umbrella term that encompasses mental health and psychological well-being.
18. The lifelong damage to mental health resulting from childhood adversity has been well established. However, there are supportive experiences that can buffer children from the effects of adversity and promote healthy development. Positive childhood experiences are advantageous as they have been shown to shape brain development and influence health across the life span (Sege and Harper, 2017). These experiences are associated with healthier relationships, better mental health, and positive characteristics such as optimism, responsibility, and resiliency in adulthood (Seya et al., 2024).
19. Key positive childhood experiences fall within 4 broad categories: being in nurturing, supportive relationships; living, developing, playing, and learning in safe, stable, protective, and equitable environments (in family, schools, communities, recreational facilities); having opportunities for constructive social engagement and connectedness; and learning social and emotional competencies (Sege and Harper, 2017).
20. Knowledge that children's brains develop in response to a wide spectrum of experiences, including both adverse experiences and positive ones, has important practical implications when considering how children and adolescents interact with the digital environment. Their developing brains need attuned parents and caregivers who interact with them in a warm, affectionate, responsive, and nurturing manner. The development of secure and sustained attachments forms the foundation for emotional self-regulation, the sense of personal value, trust, and healthy social relationships, while also favouring social competence and a flourishing adulthood (Sege and Harper, 2017). Secure attachment helps children develop resilience to stress and anxiety and reduces the risk of emotional and behavioural disorders. In contrast, insecure attachment can lead to difficulties in managing emotions, forming relationships, and an increased risk of conditions like depression and anxiety (Richter, 2004).
21. It is well-known that proper nutrition, regular physical activity, and adequate sleep are also essential for supporting physical and brain development. Good physical health supports cognitive development, emotional regulation, and mental well-being. In contrast, poor nutrition, lack of exercise, and sleep disturbances are linked to mental health problems, including depression and anxiety.

22. Opportunities for learning, problem-solving, creative play, and emotional expression help children develop their cognitive and emotional skills. This includes exposure to language-rich environments, stimulating activities (e.g., reading, puzzles, social interaction), and positive reinforcement. Cognitive stimulation and emotional support foster a child's self-esteem, resilience, and coping skills, which are protective factors for mental health. In contrast, cognitive deprivation (e.g., limited access to learning opportunities) and emotional neglect are linked to developmental delays and mental health issues like depression and anxiety (Kaizar & Alordiah, 2023).
23. Understanding and sharing cultural, community, and familiar values give children a sense of identity, belonging, and purpose. This can include cultural traditions and heritage, ceremonies, or shared community activities. A strong sense of cultural and community identity promotes resilience, self-worth, and emotional well-being. Children who feel disconnected from their cultural roots or community may struggle with identity issues, depression, or anxiety (Barsallo *et al.*, 2024).

II.3. Gender and other social determinants of mental health

24. A life course approach to mental health recognises that different factors at different stages of life can adversely affect mental health, with childhood being one of the critical periods of brain development, when adverse social and environmental experiences can affect behaviour, emotions, and cognitive evolution. It is also a period when prevention has an increased probability of success.
25. Gender constitutes a key factor for specific mental health vulnerabilities. Increased risk of mental health disorders varies by sex: females are at higher risk of depression, anxiety, and eating disorders, while males face more significant risk of developing substance use disorders, autism spectrum, attention deficit, and behavioural disorders (Riecher-Rössler, 2017).
26. Social determinants also play a crucial role, either threatening or protecting the mental health of children and adolescents. Lund *et al.* (2018) have divided social determinants into five domains: economic, neighbourhood, environment, social and cultural, and demographic. They found that poverty has a significant impact on children and adolescents, particularly girls, beginning in the perinatal period when it can disrupt the mother-child relationship. Homelessness is a risk factor for depression, anxiety, and suicidal actions among school-age children and adolescents aged 10 to 20 years.

- 27.** Exposure to insecurity and community violence in the neighbourhood also increases the probability of substance use, behavioural problems, and bullying. At the same time, providing safe walking environments with leisure opportunities can reduce the risk of depression and alcohol use. This stresses the importance of community-based health interventions.
- 28.** Environmental factors such as war, conflict, terrorism, and displacement have been found to produce emotional symptoms, sleep problems, disturbed play, and psychosomatic symptoms in children and adolescents.
- 29.** Ethnicity and ethnic diversity also play an essential role in increasing risk for mental disorders, mainly due to ethnic discrimination and exclusion (Lund et al., 2018).
- 30.** Furthermore, stigma surrounding mental health issues exacerbates the problem. In many societies, children are discouraged from seeking help due to fear of judgment or being labelled. This cultural stigma, combined with a lack of mental health services, means that children's struggles often go unnoticed and untreated, further compounding the long-term consequences on their educational, social, and emotional outcomes.
- 31.** Since these determinants can be worsened by the digital environment, developing actions and policies to protect young people's mental health is crucial.



POSITIVE ASPECTS OF THE DIGITAL ENVIRONMENT TO IMPROVE MENTAL HEALTH AND WELL- BEING OF CHILDREN AND ADOLESCENTS

- 32.** The digital environment can offer significant opportunities to support young people's mental health and well-being (Lim *et al.*, 2025). Social media and gaming, when properly designed, regulated and used can benefit children's and adolescents' mental health, and digital tools, when scientifically validated, can also be relevant in addressing mental health challenges.

III.1. Mental health platforms and services

- 33.** Digital tools tailored for children and adolescents that are scientifically validated have become increasingly relevant in addressing mental health challenges. These tools contribute to both prevention and treatment and are backed by growing evidence. Provided that proper regulations and management are in place, scalable and accessible digital therapies can be particularly valuable for those with limited access to traditional care (Chen *et al.*, 2024; Conrad, 2024). So far only a fraction of existing digital therapies is evidence-based (Lehtimäki *et al.*, 2021; Zhou *et al.*, 2021).
- 34.** Emerging technologies are being integrated in the diagnosis and treatment of mental health conditions. These technologies could improve the precision, accessibility, and personalisation of mental health care, offering innovative solutions for early detection and intervention. Digital tools should not only be accessible but also empower adolescents to use them for healthier lives (Holmarsdóttir, 2024).
- 35.** Digital technology is central in young people's lives and offers benefits such as access to diverse ideas, improved communication, social support, and better availability of health information (Holmarsdóttir, 2024). Online interventions reduce stigma and improve access to mental health care (Santoro, 2022). Websites, apps, news, social media, courses, videos, and games that promote awareness on mental health, prevention, and help-seeking are increasingly becoming available to youths.
- 36.** Mental health tools fall into three categories: self-help, therapy extenders, and virtual care (Schueller & Histon, 2023). Mobile apps are popular due to practical reasons. Many apps provide basic features such as psychoeducation, mindfulness, and mood tracking (Camacho *et al.*, 2022). They also teach youths about mental health or serve as journals to track their thoughts and feelings (Schueller & Histon, 2023). Virtual reality (VR) games can help young users develop coping strategies and improve mental health outcomes (Chen *et al.*, 2024).
- 37.** Digital tools that involve human support, such as therapists or coaches, tend to be more effective. Evidence-based digital interventions –especially those with Cognitive Behavioural Therapy (CBT) elements– help with stress, anxiety, and depression (Reitegger *et al.*, 2024; Schueller & Histon, 2023). These approaches can also reduce the time burden on clinicians while maintaining clinical outcomes (Palmer *et al.*, 2025). Interventions

that include in-person elements, such as involvement from professionals, peers, or parents, show greater effectiveness and adherence compared to fully automated or self-administered options (Lehtimäki *et al.*, 2021). Short-term digital interventions tend to have greater effect than long-term ones (Chen *et al.*, 2024). Similarly, exposure therapy delivered through VR or 2D formats shows effectiveness in treating phobias and anxiety disorders (Emmelkamp & Meyerbröker, 2021). Additionally, digital tools are increasingly used in supporting children with developmental conditions such as dyspraxia, offering tailored approaches to cognitive and motor development (Jamal & Afzal, 2024).

38. Further research is needed to understand how younger children engage with these tools to improve their well-being (Seland, 2024). In this process, it is vital to involve young people in the development of these technologies to ensure their relevance and impact (Schueller & Histon, 2023). Engaging children's and adolescents' perspectives and insights is essential to understand their digital behavioural choices and promote equity (Eickelmann *et al.*, 2024; Gudmundsdottir *et al.*, 2024). Since young people often rely on parents and caregivers for guidance, parents and caregivers need accurate knowledge to model healthy tech use (Roth *et al.*, 2024). Teaching digital literacy and critical thinking is key to preparing youth for the future (Eickelmann *et al.*, 2024). Developers should ensure sustainability and long-term availability of digital programmes (Reitegger *et al.*, 2024). To move forward, transparent collaboration between researchers, tech companies, youths, parents and caregivers is essential for ethical, data-informed inquiry (Vuorre *et al.*, 2021). Meaningful engagement with young people, parents and caregivers in co-creating acceptable frameworks for data collection, protection, and study design is essential (Girela-Serrano *et al.*, 2024).
39. Low digital skills and lack of access to devices and infrastructure contribute to exclusion, which worsens mental health outcomes, especially for vulnerable groups (Kalmus *et al.*, 2023). Differences in access and competence can limit the reach of both digital and in-person interventions (Marcu *et al.*, 2022; Idelji-Tehrani *et al.*, 2023). Solutions should include user-friendly technical support, such as guides and tutorials, to bridge the digital divide (Chen *et al.*, 2024).
40. Telemedicine can increase access to mental health care for adolescents, especially in underserved or remote areas (Chen *et al.*, 2024). Internet-based services help address shortages in mental health professionals and are particularly useful for youths with disabilities (Conrad, 2024).
41. For prevention, AI and wearable technologies can offer new possibilities for early detection. AI systems can analyse data from electronic health records and sensors to generate digital phenotypes for conditions such as anxiety and depression (Pawar *et al.*, 2024; Mucic, 2024; Ramírez, 2023). Internet of Things (IoT) can enable 24/7 monitoring and predictive analytics, facilitating proactive, personalised care as well (Thirupathi *et al.*, 2025).
42. Emerging technologies are also opening new frontiers in personalised care. VR and brain-computer interfaces are being developed to reach individuals who do not respond well to conventional treatments (Andrade *et al.*, 2024).

III.2. Social media and gaming platforms

- 43.** When accessible, properly designed, regulated, and reasonably used, gaming and social media have the potential to benefit social, cognitive, and emotional development in children and adolescents, given safe and age-appropriate design. Creating social bonds, strengthening thinking skills, and offering stress relief can be some of their benefits in both educational and therapeutic contexts.

III.2.1. Social media

- 44.** Social media has the potential to enable youths to connect with peers and family members, build and maintain relationships, and feel a sense of belonging (Avetisyan & Iskajyan, 2024). Since they use digital tools to communicate for schoolwork, hobbies, and personal social interaction (Rustad *et al.*, 2024), these platforms can enhance self-esteem and reduce loneliness by providing social support networks (Anjum *et al.*, 2024).
- 45.** Certain online communities provide safe spaces for youths facing discrimination, bullying, or mental health challenges. Peer-sharing and personal storytelling foster connection and reduce stigma. Participation in these groups can offer emotional relief and a sense of hope, having a positive impact on mental well-being, particularly in the short term (Tiidenberg *et al.*, 2023).
- 46.** Adolescents turn to social media for information not only related to their online and offline hobbies and interests, but also about the challenges they may face (Rustad *et al.*, 2024). Within appropriate constraints, social media platforms could support self-directed learning and personal growth through educational videos and discussions (Kovalova, 2024). Interest-based social media groups could promote collaboration and deeper learning, thereby serving not only as a source of information, but also as a tool for enhancing educational experiences (Avetisyan & Iskajyan, 2024).
- 47.** Often, content creators and influencers can serve as role models and educators for children and young people. With the right understanding of mental health and ethical communication, their influence could be useful to normalise mental health conversations and support awareness (Rustad *et al.*, 2024).
- 48.** Actively posting and engaging on properly regulated, designed and managed social media (as opposed to passive scrolling) could be useful to build confidence and strengthen identity and well-being (Verduyn *et al.*, 2020).

III.2.2. Gaming

49. Video games, when accessible and appropriately designed for each age group, have the potential to benefit social, cognitive, and emotional development in children and adolescents. Some of the benefits relate to improving social and cognitive skills, while also being a potential stress relief in both educational and therapeutic contexts.
50. Given proper conditions, gaming can foster peer communication and relationships through shared play (Rustad *et al.*, 2024). It may also extend real-life conversations into virtual spaces and may help young people to create meaningful and sustainable connections beyond their usual social circles.
51. Since many young people use games to reduce stress, combat isolation, and cope with daily challenges, gaming could be, when proper conditions are fulfilled, a positive factor for their wellbeing (Entertainment Software Association, 2023).
52. Serious games (purpose-driven games) can be useful to support emotion regulation, prosocial behaviour, empathy and personal growth (Jin *et al.*, 2017; Mittmann *et al.*, 2024). Furthermore, recent analysis suggests that therapy-oriented gaming interventions may promote mental health literacy among children and adolescents and relieve them from depressive symptoms, although their effects on anxiety are less clear (Zeiler *et al.*, 2025; Townsend *et al.*, 2022). While these findings are promising, most studies on both social media and gaming are preliminary and based on small samples. Further longitudinal and cross-cultural research is needed to better understand the long-term and population-level impacts of gaming on emotional and mental health.

IV.

DIGITAL EXCLUSION: THE SCOPE OF POVERTY AND INEQUALITY IN DIGITAL ACCESS AND AFFORDABILITY

- 53.** Digital exclusion presents a significant barrier to supporting children's mental health and development, particularly in underprivileged and marginalized communities. While digital media offers vast opportunities for learning, social engagement, and personal growth, these benefits remain out of reach for many due to systemic inequalities and economic challenges. Addressing these disparities requires a comprehensive strategy that includes improving infrastructure, fostering digital literacy, and incorporating culturally relevant content. Therefore, the impact of digital media on children must be understood within the broader framework of both digital exclusion and inequities within digital inclusion. It is important to examine how digital systems in Low- and Middle-income countries (LMICs) may reproduce or exacerbate inequalities, even among groups that are technically included (Heeks, 2022).
- 54.** Despite the potential of the digital environment to provide opportunities for learning, communication and wellbeing (Third *et al.*, 2017), access to digital technologies remains unequal especially for children from economically disadvantaged families and those in LMICs. UNICEF (2021) has shown that approximately two-thirds of school-aged children globally lack home internet access, with the majority living in developing countries. This gap, commonly referred to as the digital divide, reflects broader issues of poverty and structural inequities.
- 55.** Digital exclusion stems largely from economic barriers that prevent families from affording devices, internet services, or even consistent electricity. Poverty is the root cause, restricting opportunities for children in underserved areas to engage with online resources. Reports indicate that most school-aged children without internet access at home reside in LMICs, perpetuating a cycle of limited educational opportunities and reduced social mobility (UNICEF, 2021). Moreover, low-income households such as those located in rural or semi-urban regions are most affected by digital inequality (Maceviciute & Wilson, 2018).
- 56.** Poverty-related digital exclusion means that children miss out on educational opportunities that could help lift them out of poverty. For instance, the COVID-19 pandemic highlighted how children in rural areas, such as those in parts of Africa, relied on community centres or schools for internet access and resources that became unavailable during lockdowns. This interruption led to social isolation and widened educational disparities, impacting children's emotional and psychological well-being (World Bank, 2021). Similarly, many online learning platforms offer free or affordable courses but, without internet access, these resources remain out of reach for those who need them the most. In addition, the lack of digital skills also hinders future economic opportunities, creating a cycle of poverty that is difficult to overcome. The inability to participate in the digital environment further marginalises these children, leaving them with limited prospects for social mobility.

- 57.** Access to digital technologies is often influenced by factors like gender, location, education, and societal norms. The International Telecommunication Union (ITU, 2022) reports that children in rural areas are significantly less likely to have access to the internet compared to urban children—by as much as 37%. In some regions, the gender divide is prominent, with boys 25% more likely to own mobile devices than girls. In certain countries, cultural practices contribute to gendered disparities, with female students reporting lower access in digital technologies due to added household responsibilities (Mathrani *et al.*, 2022).
- 58.** The lack of consistent infrastructure, including electricity and reliable internet in LMICs, compounds these challenges. Even when devices are available, the sporadic nature of connectivity prevents meaningful engagement and skill development, leaving children feeling frustrated and disconnected. All of this has led to inadequate digital resilience among children for the types of risks they are likely to encounter at different ages. Furthermore, the digitisation of school activities increased worldwide after the pandemic (OECD, 2022). Digital exclusion tends to have an adverse effect on parental involvement in supporting children’s learning (Qualter, 2024). Unequal access to professional support systems also has some negative implications for mental health services for youth and children. A study in South Africa indicates that most young people living with mental health conditions lack access to mental health care but have access to a mobile device which, under properly regulated and managed conditions, could be useful for accessing mental care (Mindu *et al.*, 2023). Some of the barriers to access for digital mental health interventions in South Africa included the high cost of data, lack of native languages on most digital platforms and low digital literacy.
- 59.** Inequalities in digital access is double-edged (Desaii & Burtonii, 2024). On the one hand, the interaction between digital exclusion and negative mental health impacts creates a self-perpetuating cycle that is hard to break. Children who lack access to digital tools miss out on opportunities for self-expression, learning, and social interaction, which are all critical for healthy development. This lack of access often leads to feelings of inadequacy, loneliness, and diminished self-esteem. On the other hand, children in resource-constrained and unregulated environments who do have access to digital media often are exposed to potentially harmful content.

V.

NEGATIVE IMPACTS
OF THE DIGITAL
ENVIRONMENT ON
MENTAL HEALTH

- 60.** Adolescence is a period of significant change and development, making individuals more vulnerable to various risks, including mental health conditions. Based on the available evidence, this chapter highlights some of the potential harmful consequences of digital media use on children's and adolescents' mental health.

V.1. Existing evidence to evaluate the impact of the digital environment

- 61.** Technology is an enduring part of our lives, and it is essential to find ways to use it effectively and integrate it harmoniously into our daily existence. Social media, central across sectors like government, business, and education, offers clear advantages but also presents risks that require mindful use (Srivastava *et al.*, 2019). Studies highlight links between the use of social networking sites and loneliness, self-esteem, and life satisfaction, as well as somewhat stronger ties with thin body ideals and increased social capital (Appel *et al.*, 2020). While the evidence is not entirely indisputable, there is now broad, evidence-based consensus on the risks that the digital environment poses to the mental health and well-being of children and adolescents.
- 62.** What is considered harmful use of digital environment? Social media use has become very prevalent in children, adolescents and young adults, with almost 97.5% of this population (mostly from Europe and Canada) reporting using at least one platform daily (Paakkari *et al.*, 2021). Several studies have looked at harmful digital use and separated it into two distinct definitions: intense use and excessive or problematic use (Boer, *et al.*, 2020).
- 63.** Problematic social media use is used to differentiate between excessive social media use as a possible similarity to addiction, and intensive social media use characterised solely by the large amount of time spent on digital platforms. Problematic use has several categories that influence the well-being of an individual and can cause them distress. Nine of the components researched by Shannon *et al.* (2020) regarding digital use are similar to those of non-substance addictions stated in the DSM 5th edition, namely: building up a tolerance to the increased amount of screen time, difficulty to reduce the time spent on social media or stopping it, cancelling or stopping other activities, withdrawal symptoms when away from digital use, continuing with the use even in the presence of clear problems, deceiving others or trying to cover up the use, using social media as an outlet to escape from problems or negative emotions, and worries about possible losses or risk of losing relationships or opportunities.

V.2. Impact on cognitive, emotional and social development of children and adolescents

- 64. Social media has a marked effect on the cognitive development and functioning (attention, learning and memory), sleep, and the emotional and social development of children and adolescents.
- 65. Studies have shown that social media use at a young age, between 5 and 12 years, can influence attention span and hyperactivity based on the amount of screen time that the child is subjected to or their exposure to content that is inappropriate for their age (Wilkinson, Low, & Gluckman, 2021).
- 66. Additionally, exposing children to inappropriate or irrelevant materials runs parallel to the fact that digital platforms frequently lack localised or culturally sensitive content. As Livingstone *et al.* (2018) suggest, exposure to unsuitable content can foster feelings of alienation and low self-worth, further hindering children's emotional development.
- 67. There are several ways that memory can also be affected. One aspect is the overload of information, where the constant flow of information from social media platforms can overwhelm the mind of the individual, making it harder to retain several details and points. Another aspect is that the rapid pace of social engagement is often shallow and does not allow for a deep processing of the content, thus not allowing lasting memories to form (Porwal & Sharma, 2019).
- 68. Research has shown that sleep disturbances are a very possible outcome of problematic social media use. Electronic devices, regardless of what they are used for, have light-emitting screens that suppress melatonin, the hormone that promotes sleep at night. Moreover, using social media specifically affects sleep by delaying bedtime, thus reducing sleep quality (Pirdehghan *et al.*, 2021).
- 69. Social media usage has also been studied as a source of stress for its users, mainly because of the effort that the users must put to project a perfect image of themselves that is usually unrealistic and unattainable (Wilkinson, Low, & Gluckman, 2021).
- 70. Likewise, generative AI—defined as applications that produce humanlike text, photorealistic images, lifelike audio, or realistic video—has the potential to shape how young people perceive the world and interact with others (APA, 2025). The effects of AI on youth development are nuanced and complex and cannot be reduced to being wholly “good” or “bad”.
- 71. Generative AI use by children presents both opportunities and risks. Personalised learning systems, creative play tools, and easy accessibility for children with disabilities are some of the positive aspects of generative AI use by children. Risks relate to persuasive

disinformation, which is often misleading and harmful to children, as well as exposure to negative content that may influence children's perceptions and attributions of intelligence, their cognitive development, and their social behavior (UNICEF, 2025).

- 72.** Early research suggests that strong attachments to AI-generated characters may hinder the development of key social skills and the ability to form authentic emotional connections. These attachments could displace or interfere with healthy real-world relationships, leaving adolescents less equipped to navigate the complexities of human interaction. Adolescents and children may particularly struggle to distinguish between the simulated empathy of an AI chatbot and genuine human understanding, potentially blurring the line between artificial companionship and authentic relational experiences (APA, 2025).

V.3. Mental health risks and the digital environment

- 73.** There is growing consensus that excessive use of digital media may be associated with experiencing negative social comparison, promotion of maladaptive behaviours, exposure to misrepresented ideal body images, and risk of cyberbullying, all of which can adversely affect mental health outcomes. Sala et al. (2024) reviewed the adverse impact on young people's mental health and well-being associated with social media use and described how an interplay between individual characteristics, use of digital media and the platforms' content and design influences mental health outcomes in adolescents.
- 74.** Social platforms have simplified existence in the modern world by strengthening social skills and allowing for connection between different communities to foster a sense of inclusion in these individuals. However, individuals have reported feeling lonelier with the use of social media, as it makes them perceive that they are isolated from the real world away from the screen. Gaming may also have a similar effect when done in solitude (Yue et al., 2025). Peer pressure has become more present after the increased spread of social media, so the risk of being pressured by an online community to engage in risky harmful behaviours has increased tremendously (Wilkinson, Low, & Gluckman, 2021).
- 75.** Symptoms of depression and anxiety are associated with excessive use of social media in adolescents. A positive correlation between excessive use of social media and depressive symptoms has been shown in some adolescents. It is more likely that there is a bidirectional relationship between these symptoms and social media use: adolescents with a depressed mood or anxiety may spend more time on social media, which in turn can lead to a worsening of these symptoms (Vidal et al., 2020). Similarly, adolescents with social anxiety are more likely to use social media excessively to compensate but this in turn increases the frequency of avoidant behaviours. A recent survey involving thousands of young people also supports the observation that individuals with mental health conditions are more likely to spend increased time on social networking sites but remain unhappy with their experiences (Lenharo, 2025).

76. Constant exposure to idealised representations of bodies may enhance the risk of body image dissatisfaction and reduced self-esteem in vulnerable adolescent girls, leading to unhealthy eating behaviours such as restrictive eating, purging and tendency towards excessive exercise (Bozzola *et al.*, 2022).
77. The representation of female characters in virtual gaming also reproduces and perpetuates harmful gender norms and stereotypes. Only 5% of protagonists in video games are female, and even then, they are often sexualised. This compounds existing gender biases and can negatively and differently affect gender perceptions of both girls and boys (UNESCO, 2024).
78. The promotion of maladaptive behaviours of self-harm is another risk. The relationship between social media influence and suicidality is complex. Exposure to self-harm content on social media can contribute to the normalisation and desensitisation of such behaviours, as well as promote social contagion or even competitive dynamics among users (Moss *et al.*, 2023). Self-harm is considered an important risk factor for suicide.
79. Another concerning aspect of exposure to maladaptive behaviour in adolescents is exposure to higher levels of substance-related content which may develop positive norms and attitudes toward alcohol and drug use, leading to reduced threshold for accepting substance use and reduced risk perception. Unfortunately, content promoting substance use is widely available on social media, and adolescents and young adults are the primary users of social media (Rutherford *et al.*, 2023).
80. Exposure to online discrimination, hate, bullying and harassment predicts damage to psychological development and increases emotional distress. A consistent relationship has been found between cyberbullying via social media and depression among children and adolescents, with adolescent girls and sexual minorities being more at risk. UNICEF (2022) found that nearly 28% of children in East Africa reported experiences of cyberbullying. There is also evidence that online victimisation and cyberbullying may lead to increased self-harm and suicidal ideation.
81. Moreover, online discrimination and cyberbullying have been intensified by the emergence of generative AI and its convergence with social media. By creating realistic photos and videos (known as «deepfakes»), generative AI has been demonstrated to amplify technology-facilitated gender-based violence, especially with the emerging phenomenon of sexual deepfakes, threatening the mental health of girls and female adolescents (UNESCO, 2023).
82. The digital environment has become a new arena of gender inequalities and online gender-based violence: digital violence disproportionately affects women and girls. A global study reported that 58% of girls and young women have experienced online harassment, with many first encountering it between the ages of 14 and 16. Nearly half reported threats of physical or sexual violence (UN Women, 2023). Victims may experience anxiety, depression, and fear, while some face tangible consequences such as the non-consensual sharing of private information and sexually explicit materials, sometimes leading to physical harm.

V.4. Impact on adolescents with pre-existing mental health conditions

- 83.** Adolescents are already at a vulnerable stage of development, and for those with mental health disorders, excessive digital media use may amplify stressors that disrupt well-being (Fassi *et al.*, 2025). Research remains limited and inconsistent regarding causality and evidence, and must be read with caution (Kostyrka-Allchorne *et al.*, 2023).
- 84.** Adolescents with ADHD are particularly vulnerable to digital media because of difficulties with attention, impulse control, and hyperactivity. Social media and games provide constant stimulation and instant rewards, which adolescents with ADHD tend to seek more than peers (Ghiaccio *et al.*, 2025; Bourchtein *et al.*, 2019). This can lead to hyper-focus, making it difficult to disengage, and may worsen inattention and impulsivity (Shuai *et al.*, 2021). Screen use is also linked to sleep disturbances, which already affect many with ADHD, and which can further increase irritability, poor concentration, and mood swings (Becker & Lienesch, 2018).
- 85.** Social media has been identified as a contributor to body image concerns and disordered eating behaviors. Adolescents with anorexia, bulimia, or binge-eating disorder may use social media in ways that reinforce negative body image (Wilksch *et al.*, 2020). Platforms like Instagram and TikTok can normalise appearance-focused content and social comparison in ways that are particularly problematic. For adolescents already struggling with an eating disorder, this exposure can serve to normalise or even encourage harmful behaviors, and even regulated “pro-anorexia” or “pro-bulimia” material remains accessible, potentially exacerbating symptoms and hindering recovery.
- 86.** Evidence for digital media’s impact on anxiety disorders is mixed (Kerr *et al.*, 2024). Still, constant connectivity and exposure to distressing content can heighten worry, particularly in cases of generalised or social anxiety. Social comparison and the fear of missing out (FOMO) often intensify symptoms while cyberbullying and online criticism can worsen avoidance and withdrawal (Kostyrka *et al.*, 2023). The impact of digital media on adolescents with depression seems to be significant, as it can worsen symptoms and even prolong episodes (Zhang *et al.*, 2019). While it may serve as escapism, heavy use often reduces real-life interaction and increases loneliness. Social comparison, “doom scrolling,” and exposure to triggering content, including self-harm or suicide-related material, are particularly harmful (Gansner *et al.*, 2019), potentially normalising depressive thoughts and delaying help-seeking.

- 87.** Adolescents with disabilities are a heterogeneous group, but often face added vulnerability due to physical, cognitive, social, and emotional challenges (Álvarez-Guerrero *et al.*, 2024). Excessive digital engagement can deepen isolation, as they may struggle with online social dynamics. Cyberbullying disproportionately affects this group, increasing risks of anxiety, depression, and low self-esteem (Alhaboby *et al.*, 2019). The design of digital tools often fails to meet accessibility standards, excluding these adolescents from full participation and reinforcing marginalisation (Alfredsson *et al.*, 2020). Overuse of screen-based media can also disrupt critical developmental milestones, including social and communication skills, especially for those with developmental or sensory impairments.

V.5. Mental disorders attributed to harmful use of the digital environment

- 88.** Besides the associations with already known mental health conditions (disorders and disabilities), excessive digital technology use has also contributed to the emergence of new disorders—some recognised, others still evolving. Screen Dependency Disorder (SDD) has gained attention because of uncontrolled digital device use (Rahaman & Saidi, 2024). Problematic internet use is linked to impulsivity, risk-taking, and changes in brain regions related to reward and executive control. It also correlates with internalising symptoms, cognitive distortions, and internet use disorders (Yau *et al.* 2014).
- 89.** Gaming Disorder (GD) is recognized in the ICD-11 as a behavioural addiction (Columb *et al.* 2022), while the DSM-5 lists Internet Gaming Disorder (IGD) as an addictive disorder with a global prevalence estimated at 3–5%, comparable to rates observed for other recognised conditions such as ADHD, obsessive-compulsive disorder (OCD), and post-traumatic stress disorder (PTSD) (Ko & Yen, 2024). Individuals with IGD show impaired gaming control and suffer in personal, academic, and social domains. Symptoms include obsessive play, social isolation, poor social skills, stress, aggression, and even suicidal thoughts (Kaya *et al.*, 2024). Though IGD is recognised, debate continues about classifying other digital behaviours as mental disorders.

VI.

ETHICS AND HUMAN RIGHTS FRAMEWORK

90. In light of the diverse opportunities and risks that digital environments present for children and adolescents, there is an urgent need for ethical reflection on how to appropriately balance these benefits and harms. This includes safeguarding and promoting the vital goods, interests, rights, and well-being of young people—particularly their right to mental health. Equally important is the need to consider how the rights and responsibilities of various stakeholders in the digital sphere should be weighed against children's freedom and best interests, and how these considerations should inform the governance of digital spaces.

VI.1. Ethics, children, adolescents and the digital environment

91. Ethical reflection resorts to normative concepts that elucidate what parents and other stakeholders morally owe to children and adolescents to make their lives go well. What we morally owe to children and adolescents can be understood as duties that are grounded in what is good for them and thus in their best interest. What is good for children and adolescents is further explained by what some ethicists call the goods of childhood and adolescents. To the extent that furthering these goods is vital to the children's and adolescents' best interest, they can be thought to require legal protection and undergird a human right to these goods.
92. Philosophers have paid inadequate attention to childhood as a phase of life with a value of its own. The *Predicament View* holds that childhood is only instrumentally good to the extent that it leads to a well-functioning adult (Schapiro, 1999; 2003). Some even think that childhood itself is mostly bad and should be overcome as quickly as possible, not least because it leaves children fundamentally dependent (Hannan, 2018).
93. More recently, however, philosophers have pointed out that the *Predicament View* fails to acknowledge what is intrinsically valuable about childhood. They demonstrate that childhood, as a period of life, is valuable independently from how it leads to a good life later. This is because there are distinct kinds of goods – “intrinsic goods of childhood” that can only be realised during childhood, or are, at least, more accessible during childhood. Such goods can be grouped into interpersonal goods and intrapersonal goods. Trust, love, carefreeness and sexual innocence are interpersonal (or relationship-) goods. If the relationships children have with their parents and close others are flourishing, they are trusting, loving, carefree (that is, devoid of worry, anxiety and responsibility), and sexually innocent (Brennan, 2014; Gheaus, 2015; Ferraccioli, 2020). Among the intrapersonal goods that are mentioned are unstructured imaginative play (Brennan 2014), timelessness, endless possibilities, and the freedom to experiment with different identities (Cormier & Rossi, 2019), as well as achievement (Ferraccioli, 2024).

- 94.** Intrinsic good theories not only diverge on what the list of goods intrinsic to childhood precisely contains. They also differ in how categorically distinct these goods really are from goods that matter in adulthood. Some maintain that they may have value only or much more readily in childhood (Brighouse & Swift, 2014), others hold that children have privileged and possibly unique access to such goods (MacLeod 2010; 2015). One underlying thought is that given the different capacities of children compared to adults, they benefit from different kinds of goods. If this is right, we seem to be able to explain that “these goods matter intrinsically, that is, for their sake, and they can’t be discounted completely in favour of the goods of adult life (...)” (Brennan 2014).
- 95.** Even though philosophers have mostly covered childhood (which is usually taken to be the first phase of life between 0 and 12), we might extrapolate from these goods, some which are intrinsic to adolescence (a phase of life between 13 and 18). While some of the goods may remain the same as in childhood (trust, love, freedom to experiment with different identities), others may come into play, such as the freedom to explore sexual awareness, to develop relationships of one’s own choice, the possibility to cultivate and exercise one’s growing autonomy, and to be held responsible in protected ways. It is important to emphasise that adolescents always need support from close others to develop their autonomy and become skilled, independent and autonomous agents in the future (Betzler, 2022).
- 96.** To the extent that we can posit a fundamental interest of children and adolescents to have flourishing childhoods and adolescence, we can ground their moral (and potentially legally protected) rights in these goods. Apart from its intrinsic value, this interest can be thought to be grounded in the fact that only a flourishing childhood and adolescence can lead to a good life overall. What is more, since a bad childhood and adolescence have more negative effects on how a life is lived overall, we should attend even more carefully to how children’s and adolescents’ lives are going. It is these accounts of goods that provide a more informative basis for moral rights that have been introduced regarding children, most notably, the right to an open future (Feinberg, 1980). This right can, for example, be grounded in the childhood good of endless possibilities, and the freedom to experiment with different identities. It can also be grounded in the good of adolescence to support the development of one’s autonomous capacities. Hence, it is important that the moral reflections on children’s well-being in the digital environment acknowledge both the intrinsic and instrumental significance of the goods of childhood and adolescence. This is essential for adequately addressing some of the potential dilemmas for parents, guardians, and other stakeholders regarding their moral obligation to ensure the well-being of children and adolescents in the digital environment.

VI.1.1. The goods of childhood and adolescence and mental health

97. To be sure, some of the goods intrinsic to childhood and adolescence mentioned above may be contested, and there is bound to be significant cultural variation in their value and priorities. For example, how much freedom to experiment with one's own identity, how much freedom to explore one's sexual awareness, the degree of carefreeness at different ages, and how much autonomy should be granted in these pursuits are up for debate. While cultural variations and potential controversies exist, many of these goods are widely recognised as beneficial across different contexts. These goods account for what makes children's and adolescents' lives go well. Their realisation promotes mental health, an essential precondition and constituent of overall well-being.
98. The earlier cited WHO definition of mental health highlights the instrumental value of mental health. But even though mental health is highly valuable for instrumental reasons, the WHO report on *Promoting Mental Health* also emphasised that "the main reason for promoting good mental health is its great intrinsic value" (WHO, 2005). Scholarly views share this same perspective. Mental health is valuable in and of itself because the human person is a "*minded body*," "*embodied subjectivity*," and "*embodied self*" shaped by social and technological environments. Our minds—their contents and capacities—to a significant extent define who we are, how we (can) experience our bodies, the environment and life events, and how we (can) interact with others and the world. Good mental health is positively correlated with psychological and emotional well-being and overall life satisfaction. In contrast, mental disorders can be a source of distress, anxiety, and suffering, often of an existential nature. They can undermine an individual's sense of identity, agency, and self-worth, as well as the meaning and value of his or her life.
99. Thus, poor mental health negatively affects a person's overall well-being in the here and now. Moreover, when it comes to children and adolescents, poor mental health not only has a negative impact on their well-being in the here and now, but may also preclude some of their adult opportunities, especially those that are highly dependent on cognitive, emotional and/or social skills, thus limiting their full exercise of autonomy in adulthood and their achievement of a good life overall. It is therefore essential to protect and promote the mental health of children and adolescents, both for their own sake and for the sake of the adults they will become. It is also crucial to enhance the enjoyment of the other personal and interpersonal intrinsic goods of childhood and adolescence, as they are related to the mental health of children and adolescents.

VI.1.2 The goods of childhood and adolescence in the digital environment

- 100.** The digital environment presents both opportunities for and threats to the goods of children and adolescents, including their mental health as a major constituent of their overall well-being. For example, accessible, safe and inclusive digital technologies can provide new means for realising the good of experimenting with one's identity and forming friendships of one's choice, both of which are critical to promoting children's mental health. In contrast, inappropriately designed social media that contain sexualised content, depict sexual violence, or perpetuate sexualised gender norms undermine the good of sexual innocence and can have devastating effects on the mental health of children and adolescents. Similarly, interactive virtual games used for harmful marketing can undermine the unstructured imaginative play and carefreeness of childhood and pose a threat to the enjoyment of the intrinsic value of these goods and their instrumental value for effective cognitive and psychosocial development.
- 101.** These two faces of the digital world justify the demand for the equitable access to digital technologies, which can offer new opportunities for promoting the goods of childhood and adolescence, while prompting justified concern about the extent to which the new information and communication technologies pose risks to the mental (and overall) well-being of children and adolescents and eliminate some of their valuable opportunities in the future.

VI.1.3. Autonomy of children and adolescents in the digital environment

- 102.** Children are particularly vulnerable and in need of appropriate care, support and protection, especially from neglect, abuse, violence, and exploitation. This is due to their immaturity, dependence, and status in society. But children and adolescents are also future moral agents. Their developing capacity for moral agency, responsible decision-making and accountability is one of their defining characteristics, along with their vulnerability, and must therefore always be considered when considering the appropriate regulation, design, management and use of new digital technologies. There is a need to strike the right balance between the freedoms required to realise certain goods of childhood and adolescence and the limitations necessary for the effective protection of children and adolescents against digital risks and harms, while keeping their worthwhile future opportunities open until they are fully capable of exercising their autonomy. While the carefreeness or the freedom to experiment with one's identity or sexuality and to develop relationships of one's own choosing are among the intrinsically valuable goods of childhood and adolescence, a holistic concern for the person's well-being requires anticipating and mitigating risks that such activities may pose to her or him in the short and long term. This perspective is consistent with the descriptions of children's and

adolescents' (minors') right to autonomy as a 'right-in-trust' (Feinberg, 1980), or as "being inherent in children as persons and [the need] to ground children's rights in dignity and protection" (Goodmark, 1999).

- 103.** In a nutshell, the philosophical ideas of the goods of childhood and adolescence on the one hand, and that of the moral right of children and adolescents to an open future (Feinberg 1980) on the other, provide a framework for understanding the nature of the moral duties of parents, guardians, governments and other commercial and non-commercial stakeholders towards children in the digital environment. Based on these ideas, the obligations of stakeholders take both negative and positive forms. They prohibit the imposition of unjustified constraints that will eliminate or significantly limit children's and adolescents' ability to take advantage of the opportunities presented by the digital environment for their present and future well-being (such as a total ban, or excessive restriction of access to digital environment). On the other hand, they require the implementation of measures that will protect the vulnerability of children and adolescents from harm, abuse and exploitation, and enhance their capacity to make informed decisions in interacting with the digital environment now and in their adulthood. In human rights discourse, these duties are the correlates of children's legally protected human rights in the digital environment, which will be the subject of the next section of this report. These legal rights have a strong moral basis and justification, as they can be seen as legal instruments aimed at the effective and full realisation of the above-mentioned moral goods and interests of children and adolescents.

VI.2. Children's and adolescents' right to mental health and the digital environment

- 104.** As has been shown, the expanding digital environment affects most aspects of children's and adolescents' lives, creating opportunities as well as risks and challenges for the promotion, respect, protection and fulfilment of virtually all of their rights, most fully recognised in the UNCRC. This includes the right to mental health, which is the focus of this report.

VI.2.1. The right to mental health and the digital environment

VI.2.1.1. The right to health

105. Health is a fundamental human right, indispensable for the exercise of all other human rights. Every human being is entitled to the enjoyment of the highest attainable standard of physical and mental health, essential to living a life in dignity (OHCHR, 2000). The right to health is inclusive, encompassing both freedoms and entitlements. It entails access to the facilities, goods, services, and conditions necessary for realising the highest attainable standard of physical and mental health. This right is underpinned by essential and interrelated elements: availability, accessibility, acceptability, and quality (WHO & OHCHR, 2023). It also implies a framework of norms and obligations, including freedoms, entitlements, non-discrimination and equality, participation, international assistance and cooperation, as well as monitoring and accountability (OHCHR, 2000).
106. Some of the key international human rights instruments enshrining the right to health include the Universal Declaration of Human Rights (Article 25.1); the Universal Declaration on Bioethics and Human Rights (Article 14); the International Covenant on Economic, Social and Cultural Rights (Article 12); the Convention on the Elimination of All Forms of Discrimination against Women (Articles 11 and 12); the International Convention on the Elimination of All Forms of Racial Discrimination (Article 5(e)); the Convention on the Rights of the Child (Article 24.1); and the Convention on the Rights of Persons with Disabilities (Article 25). In addition, several regional human rights instruments also recognise the right to health, such as the European Social Charter (Article 11), the African Charter on Human and Peoples' Rights (Article 16), and the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Article 10).

VI.2.1.2. The right to mental health

107. Mental health is an increasingly recognised public health priority and a fundamental human rights concern (WHO & OHCHR, 2023). The recognition of an affirmative right to mental health has evolved comparatively slowly within international human rights law (Gable and Gostin, 2009). However, in recent years, its importance as an integral part of the right to health has gained prominence. The UN Human Rights Council Resolution of 2020 on "Mental Health and Human Rights" strongly affirms "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, and emphasises that mental health is an integral part of that right" (UNHRC, 2016; 2017; 2020).

108. The realisation of mental health is intrinsically linked to the full enjoyment of human rights, which are universal, inalienable, indivisible, and interdependent. A human rights-based approach to mental health addresses political, economic, social, and cultural barriers while empowering individuals and groups, particularly those most disadvantaged. Growing awareness of social determinants of mental health and the importance of providing person-centred, human rights-based, and recovery-oriented care underscores the necessity of incorporating a human rights perspective in mental health policies (WHO & OHCHR, 2023).
109. The relationship between mental health and human rights is complex and bidirectional. While human rights violations negatively impact mental health, the protection of human rights contributes to improved mental health outcomes. Individuals with mental health conditions are often at higher risk of human rights violations, including discrimination, stigma, and coercive measures, compared to the general population (Mahdanian *et al.*, 2023).
110. The Convention on the Rights of Persons with Disabilities (CRPD) reinforces the international human rights framework in mental health care, affirming that persons with mental health conditions and psychosocial disabilities enjoy equal rights with others (UNCRC, 2006; 2017; 2018). The CRPD provides a legal foundation for developing rights-based mental health systems that prioritise empowerment and active participation in recovery (WHO & OHCHR 2023).
111. Mental health and well-being are essential for sustainable development and are strongly associated with social, economic, and physical environments, as well as factors such as poverty, violence, and discrimination (WHO & OHCHR, 2023; Patel, 2018). The Sustainable Development Goals (SDGs) and Agenda 2030 recognise the promotion of mental health and prevention strategies (SDG 3.4) in close connection with poverty eradication (SDG 1) and reducing inequalities (SDG 10).
112. In pursuit of the right to mental health, states have a duty to act, to the maximum extent of their available resources and, where necessary, within the framework of international cooperation, to promote and protect all human rights and fundamental freedoms in the context of mental health. Policies and services related to mental health must comply with international human rights standards, with particular attention to eliminating all forms of violence and discrimination while promoting full inclusion and effective participation in society (UN A/HRC/RES/32/18).

VI.2.1.3. The right of the child to mental health and the digital environment

113. As noted, mental health problems often develop early in life. It is estimated that in 2021, one in seven (15%) young people aged 10-19 experienced mental health problems, with suicide being the third leading cause of death among those aged 15-29 (WHO, 2024). A life course approach to mental health recognises that different factors at different stages of life can adversely affect mental health, with childhood being one of the critical periods.

However, children and adolescents are often overlooked in efforts to achieve the SDGs, including universal health coverage (WHO & UNICEF 2024). This has resulted in chronic underinvestment and a global shortage of accessible, affordable, quality and youth-friendly mental health services that they need and are entitled to.

- 114.** All children and adolescents have the right to grow up in an environment that promotes their mental health. They should have access to quality, age-appropriate, rights-based mental health and psychosocial support when needed. Ensuring full access to such services is essential for the full realisation of children's right to mental health and other human rights, thereby enabling them to realise their full potential, alleviating unnecessary suffering and promoting sustainable development and stable communities (WHO & UNICEF 2024).
- 115.** The UNESCO Declaration on Bioethics and Human Rights (2005) clearly emphasises that the benefits arising from scientific advancements and technologies, including information and communication technologies, should be shared with society as a whole, especially when they lead to more accessible and higher quality health services and new diagnostic and therapeutic modalities and products (Article 15 in relation to Article 14), without any discrimination and stigmatisation (Articles 11 and 10), with respect for cultural diversity and pluralism (Article 12), and special attention and protection for vulnerable individuals and groups (Article 8). These considerations are particularly important in the context of health care services facilitated by new digital technologies.
- 116.** The digital environment—when accessible and properly regulated, designed, managed and used—can complement, improve or even replace face-to-face mental health services (UNCRC, 2021, paras. 93-95). Digital technologies can facilitate access to high-quality medical diagnosis and treatment, psychological counselling, mental health helplines/chats/apps and support groups. They can provide access to valuable health-related information, provided they are evidence-based, age-appropriate and non-discriminatory. Online health services and resources are often the only way for children with mental health problems who live in remote areas or in other disadvantaged and vulnerable situations to get the help they need. They are critical in public health emergencies, when access to in-person health services becomes impossible.
- 117.** However, in leveraging the digital environment to fulfil children's right to mental health, there is a need to identify and mitigate risks it poses (Stoilova et al., 2021; OECD, 2021a; UNICEF 2017). Some of these threats may emanate from unprofessional, irresponsible, and unsafe online health services and information. For that matter, digital health services must always meet all professional standards of scientific and clinical values and ethics, especially standards of equality and confidentiality. Digital media should never be used to promote health misinformation, encourage unhealthy behaviours, or reinforce existing inequalities through discriminatory stereotypes or prejudice (UNCRC, 2021, paras. 96-98).

VI.2.2. Opportunities for children's rights in the digital environment that promote mental health

- 118.** The digital environment—when accessible and properly regulated, designed, managed and used—has the potential to promote a wide range of civil, political, cultural, economic and social rights of children and adolescents, the fulfilment of which is critical to their mental health, well-being and overall development (Articles 6 and 27 of the CRC).
- 119.** As digital technologies are inherently information and communication technologies, they provide new and unique opportunities for the realisation of the child's right to freedom of expression, which includes the right to information, namely the freedom to seek, receive and impart information and ideas of all kinds, through any media and by any means of the child's choice (Article 13 of the CRC). The CRC recognises the important role played by mass media, including digital media, especially those aimed at the promotion of children's social, spiritual and moral well-being and physical and mental health (Article 17 of the CRC). The digital environment can therefore promote unhindered access to safe, trustworthy, high-quality, diverse, inclusive and age-appropriate content produced and disseminated by a wide range of sources, including media and educational, scientific and cultural organisations (UNCRC, 2021, paras. 50-53).
- 120.** The digital environment can greatly enhance the realisation of children's right to freedom of thought, conscience and religion (Article 14 of the CRC) by providing them with new means to express and discuss with others their views on personal, social and political matters, as well as to manifest and practice their moral and religious beliefs. New digital networking opportunities can also promote the right to freedom of association and peaceful assembly (Article 15 of the CRC). They help children realise their need for peer recognition, friendship, and other meaningful relationships, as well as social belonging and political participation. They enable children "to form their social, religious, cultural, ethnic, sexual and political identities and to participate in related communities and public spaces for deliberation, cultural exchange, social cohesion and diversity" (UNCRC, 2021, para. 64).
- 121.** Thus, digital information and communication technologies provide new venues for the realisation of the principle of respect for the views of the child. By providing new means for children and adolescents who can shape their own views to "express those views freely in all matters affecting them" (Article 12 of the CRC), they promote their civic and political participation and social engagement and enable them to make their voices heard at the local, national and international levels (UNCRC, 2021, paras. 16-18; 2009b).
- 122.** The digital environment can also have a great positive impact of children's *right to education* (Article 28 of the CRC), by providing access to high quality online or mobile learning, inclusive education, and to valuable "resources for formal, non-formal, informal, peer-to-peer and self-directed learning" (UNCRC, 2021, para. 99). It also opens new ways for the realisation of children's right to rest and leisure, "to engage in play and recreational activities and to participate freely in cultural life and the arts" (Article 31 of the CRC; UNCRC, 2013c, para. 45).

- 123.** All of these new educational, cultural, and recreational opportunities play an essential role in a child's mental well-being and development by facilitating the acquisition of diverse cognitive, emotional, and social skills and the realisation of the goods of childhood and adolescence. They encourage imagination, creativity, cooperation, and healthy competition, provide opportunities for achievement, and contribute to the formation of personal and cultural identity by providing opportunities to experiment with different identities.
- 124.** Technology-enabled access to information, communication, socialisation, education and culture creates particularly valuable opportunities for children in disadvantaged and vulnerable situations, especially those living in remote areas or otherwise disconnected from their families and/or social environment, and children with different types of disabilities (UNCRC, 2006, paras. 12, 37). Inclusive (universal) digital design and assistive technologies can remove barriers to information, communication and participation for children with disabilities, including mental disabilities and other mental health issues, thereby promoting equal opportunities and providing a sense of empowerment and agency that ultimately contributes to improved mental and physical health (Article 23 of the CRC; UNCRC, 2021, paras. 89-92; see also Article 9 of the Convention on the Rights of Persons with Disabilities; OHCHR, 2014; 2016). Access to a culturally diverse and culturally sensitive digital environment is also crucial for children belonging to ethnic, religious or linguistic minorities or children of indigenous origin, as it can significantly enhance their "right to enjoy their own culture, profess and practice their own religion or use their own language" (Article 30 of the CRC; also, UNCRC, 2009a, paras. 37-40, 61).
- 125.** In conclusion, equitable access to appropriately regulated, designed, managed, and used digital technologies can greatly promote social equality and children's right to non-discrimination (Article 2 of the CRC). This right not only prohibits any discriminatory treatment, but above all requires proactive measures to create equal opportunities for all children to enjoy their rights. It requires states to "ensure that all children have equal and effective access to the digital environment in ways that are meaningful to them" (UNCRC, 2021, para. 9; Özkul et al., 2025). This is particularly important in the context of digital exclusion, illiteracy and information poverty, and other risks posed by the digital environment (UNICEF, 2017). Every child, regardless of their "race, colour, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status" (Article 2 of the CRC), should feel "safe, respected and empowered in the digital world" (Özkul *et al.*, 2025).

VI.2.3. Risks to children's rights in the digital environment that threaten mental health

- 126.** As shown above, the opportunities offered by the digital environment are critical to the full realisation of a wide range of children and adolescents' rights, including their right to mental health. But they must be carefully balanced against a wide range of "old" and "new" types of risks of violation or abuse of children's rights.

- 127.** The OECD has identified four primary categories of such digital risks (OECD, 2021a; 2011; UNICEF 2017): *content risks*, which are associated with exposure to hateful, harmful, or illegal content or disinformation; *conduct risks*, which result from problematic behaviour among children as peer-to-peer users; *contact risks*, which are associated with hateful, harmful, illegal, or otherwise problematic encounters that children have in the digital environment; and *consumer risks*, which relate to the fact that children are targeted by advertisers or exposed to problematic commercial practices. The OECD has also recognised three overarching (cross-cutting) risk categories, namely *privacy risks*, which can be associated with different practices, contexts and purposes of data sharing, collection, storage and processing; *advanced technology risks*, i.e., risks of the misuse of such technologies as the Internet of Things, AI, predictive analytics, biometrics, or neurotechnologies, which have even greater potential to violate children's safety, security, privacy, and to deepen and create "inequalities, exclusion, discrimination, bias, and manipulation" (OECD 2021a; UNICEF & Human Rights Center, 2019; UNESCO International Bioethics Committee, 2021; UNESCO, 2022); and, last but not least, *health and well-being risks* (OECD 2021a; 2011; UNICEF 2017).
- 128.** All these risks can overlap and reinforce each other, resulting in psychological, sexual, and economic violence and exploitation. It has been recognised for many years that digital technologies, including mobile phones, the Internet, social media and/or email, can be used as a means of violence (UNCRC, 2011, paras. 21, 31; UNCRC, 2013c, paras. 46-47), and as such their use may have a detrimental effect on children's health and overall well-being. Although all children and adolescents engaged in the digital environment are at risk of becoming victims of violence, some groups are particularly vulnerable and deserve special attention. This includes, but is not limited to, girls and young women (UNHRC, 2018; OHCHR, 1992), children with disabilities (OHCHR, 2016, paras. 29-31, 33-35; see also Article 16 of the Convention on the Rights of Persons with Disabilities in connection with Article 6; UNCRC, 2011, para. 73(b)(g)), children with mental health problems, and children who are also more vulnerable to "offline" discrimination and violence based on their race, ethnicity, nationality, gender identity, sexual orientation, and other factors (UNCRC, 2011, paras. 72(b)(g)).
- 129.** Thus, there is no doubt that the risks posed by inappropriately regulated, designed, managed and used digital technologies can negatively affect a whole range of children's rights, the enjoyment of which is crucial for the realisation of their right to physical and mental health and well-being (Article 24 of the CRC), right to privacy (Article 16 of the CRC), right to life, survival and development (Article 6 of the CRC), right to be free from all forms of violence (Article 19 CRC), right to be free from all forms of sexual exploitation and sexual abuse (Article 34 of CRC), and right to be free from all forms of exploitation (Article 36 of the CRC).

VI.2.4. The best interest of the child in the digital environment

- 130.** The digital environment presents unprecedented opportunities and challenges to the human rights of children and adolescents, particularly their right to mental health. The proper and effective implementation and protection of these rights in the digital environment must consider four general principles of the CRC (UNCRC, 2003, para. 12): the right to non-discrimination (Article 2 of the CRC), the principle of the best interests of the child (Article 3.1 of the CRC), the child's right to life, survival and development (Article 6 of the CRC) and the right to be heard (Article 12 of the CRC). The right to non-discrimination has already been discussed in the previous parts of this chapter. The focus here will be on the best interest principle and respecting the evolving capacities and views of children and adolescents, which is a corollary of their right to be heard.
- 131.** The best interest principle is probably the most important principle for guiding the implementation of the rights of the child, including in the digital environment (UNCRC, 2021). The principle does not refer to any right, but to a shared commitment and responsibility to ensure "both the full and effective enjoyment of all the rights recognized in the Convention and the holistic development of the child" (UNCRC, 2013a, para. 4). It is stressed that "the full application of the concept of the child's best interests requires the development of a rights-based approach, engaging all actors, to secure the holistic physical, psychological, moral and spiritual integrity of the child and promote his or her human dignity" (UNCRC, 2013a, para. 5). These "actors" include states acting via "public or private social welfare institutions, courts of law, administrative authorities or legislative bodies,[for whom] the best interests of the child shall be a primary consideration" (Article 3.1 of the CRC), parents, legal representative and guardians of children (Article 18.1 of the CRC), "civil society entities and the private sector, including profit and non-profit organizations, which provide services concerning or impacting on children" (UNCRC, 2013a, para. 12, also paras. 14-15), and businesses, including commercial enterprises that design, develop and deliver digital products and services, such as the Internet, smartphones, social media platforms and applications, games or, more recently, generative AI. It is because, "states are obliged to integrate and apply this principle in all legislative, administrative and judicial proceedings concerning business activities and operations that directly or indirectly impact children" (UNCRC, 2013b, para. 15). Thus, all the digital commercial (and non-commercial) products, services, activities and operations must be regulated and run in ways that are consistent with the normative implications of the best interest principle.
- 132.** The concept of best interest is not easy to define, and it should not be conflated with other concepts, such as health, well-being, development, needs, views, or rights of children (Özkul *et al.*, 2025). The UNCRC recognises the child's best interests to be a threefold concept: (i) a substantive right of the child "to have his or her best interests assessed and taken as a primary consideration when different interests are being considered" (UN CRC/C/GC/14, para. 6(a)); (ii) a fundamental, interpretative legal principle to solve legal ambiguities in favour of the option that best serves the child's interests (UN CRC/C/GC/14,

para. 6(b)); (iii) a rule of procedure, which requires that whenever a decision to be made affects a child or children, an assessment of the possible positive or negative impacts of the decision on the minors be performed. (UNCRC, 2013a, para. 6(c)).

133. Article 3.1 of the UNCRC states that the best interests of a child shall be “a primary consideration” in the adoption of all legislative, administrative and judicial measures of implementation of children’s rights (see also Article 7.2 of the CRPD). “The expression ‘primary consideration’ means that the child’s best interests may not be considered on the same level as all other considerations. This strong position is justified by the special situation of the child, in terms of their dependency, maturity, and legal status. Children have less possibility than adults to make a strong case for their own interests and those involved in decisions affecting them must be explicitly aware of their interests. If the interests of children are not highlighted, they tend to be overlooked” (UNCRC, 2013a, para. 37). This is critical in the modern digital environment, which is characterised by a strong power and knowledge asymmetry between companies providing digital products and services; and children, their parents and caregivers, who often lack an understanding of the impact of the digital world on their children’s development and mental health. They often lack sufficient digital literacy and skills to help, support, and protect their children from digital risks and harms (UNCRC, 2021, paras. 84-85).
134. The principle of the best interests of the child must never be read in such a way that children become patients of moral concern only. Children, especially the older ones, are moral agents/actors in the digital world, and their voice in shaping that world must be heard (Article 12 of the UNCRC) and always taken seriously (UNCRC, 2013a, paras. 6, 43-45, 53-54; UNCRC, 2009b; UNCRC, 2013b, paras. 21-23; UNCRC, 2021, paras. 16-18). In addition, their opinions, views and preferences should be given greater weight as the child’s capacities, understanding, and agency develop. This consideration is a critical part of the concept of the best interests of the child. The UNCRC clearly recognises the role of the family in providing–“in a manner consistent with the evolving capacities of the child”–appropriate direction and guidance for the child in the exercise of the rights recognized in the Convention” (Article 5 the UNCRC, see also Article 14.2 of the CRC; Article 7.3 of the CRPD). Thus, as children grow and mature, they become more directly responsible for decisions about their own lives and the exercise of their rights.
135. The respect for the evolving capacities of the child “has particular significance in the digital environment, where children can engage more independently from supervision by parents and caregivers” (UNCRC, 2021, para. 19). But this also creates additional challenges, especially for children and adolescents of different abilities, who are at greater risk of discrimination, cyberbullying, manipulation, and other forms of digital violence. Uncontrolled access to online information and communication can expose these young people to content and/or contacts that can worsen their psychological and emotional condition and even endanger their lives. This includes, but is not limited to, the risk of receiving inappropriate or misleading health-related advice that may encourage them to engage in activities that are harmful to their health or life, and the risk of

being manipulated and recruited by extremist groups; or the risk of becoming victims of exploitation for sexual, commercial, or other purposes. Clearly, both the risks and opportunities associated with engagement in the digital environment change according to children's age and maturity. And the approaches taken to ensure the right balance between them to promote the best interests of the child must be different depending on the child's stage of development and level of decision-making capacity (UNCRC, 2016).

- 136.** In conclusion, the principle of the best interests of the child does not have a uniform, single, universal meaning. Children differ in age, maturity, mental status, abilities, cultural background, socio-economic position, level of parental/caregiver involvement, needs, preferences and values. They experience different problems, including access to digital technologies, and face different risks, challenges and opportunities, including in the digital environment. They therefore require different levels and types of assistance, support, empowerment, and protection. "The concept of the child's best interests is complex, and its content must be determined on a case-by-case basis" (UNCRC, 2013a, para. 32), considering all relevant contextual considerations, conflicting duties, responsibilities, interests, and needs.
- 137.** One thing seems certain: the principle of the best interests of the child requires the creation of a digital environment in which all actors take shared responsibility for promoting mental health and the full and effective enjoyment of all children's rights and their holistic development. The digital world that protects children from harm and abuse maximises opportunities for advancement of their rights and minimises the risk of their rights being violated. "In the context of digital technologies, best interests of the child involve creating a digital environment that is safe, fair, accessible, inclusive and empowering for all children whether or not they are affected in direct or indirect ways" (Özkul *et al.* 2025). Only such properly regulated, designed, managed and used digital technologies can promote the realisation of the intrinsic and instrumental goods of childhood and adolescence, which constitute a moral foundation of the rights of the child, and protect and promote the mental health and general well-being of all children and adolescents, as well as the adults they will become in the future.
- 138.** A wide range of international human rights organisations and bodies have already issued recommendations and guidance on how to create such a safe and beneficial digital environment for children and how to effectively combat online discrimination and violence against children (e.g., Council of Europe, 2018; 2024; OECD 2011, 2021a, 2021b; UNICEF 2017, 2022, 2024; UNCRC, 2021). Unfortunately, despite the strong normative foundation and guidance, the current digital environment still falls short of realising the best interests of the child. Stronger commitment and mobilisation of all stakeholders are needed to achieve effective protection and promotion of all children's rights in the digital environment.

VI.3. Co-creating the digital environment in the best interest of the child: responsibilities and measures

VI.3.1. Shared commitment and responsibility

- 139.** The digital environment is complex, subject to rapid evolution and has the capacity to shape and reshape children's lives in a variety of ways. Hence, a holistic approach to children's and adolescents' mental health and well-being in the digital environment requires collective action in designing and implementing multidimensional approaches and evidence-based standards. The UN Global Digital Compact recognises the critical contributions of all stakeholders in working towards an open, safe and secure digital future for all. One of the key commitments is to strengthen legal and policy frameworks to protect children online (UNGA, 2024). Stakeholders, including parents, educators, policymakers, mental health professionals, and IT technology providers, must work together and invest in strategies that empower children to navigate the digital world while prioritising mental health, implementing targeted interventions, and promoting a shared understanding of online threats to mental well-being, to create a safer digital environment for children and adolescents and their mental health (WEF, 2023).

VI.3.2. Responsibilities of IT businesses and children's rights

- 140.** IT companies play a critical role in ensuring safer internet-based services for children and future generations (ITU, 2020). This is mainly because the idea that digital citizenship can be achieved within the family or through media literacy education in the classroom is an argument that ignores the unequal power relationship between corporations and families, and the inability of most people to understand the complexity and opacity of digital relationships and business models in this area (Hartung, 2020).
- 141.** The UN Guiding Principles on Business and Human Rights provide a framework to address risks inherent to technology business models (OHCHR, 2011) and UNICEF's Children's Rights and Business Principles establish corporate responsibilities toward children's rights (UNICEF, 2012). Both these standards contribute to a growing consensus in the international community on the obligation of the private sector to integrate privacy,

security and protection by design, including in products and services that are specifically designed for or targeted at children, as well as those that are not targeted at children but may be used by them (UNGA, 2023).

- 142.** Industry has a responsibility of working together to strike a careful balance between business interests on the one hand, and the general right of children to protection and their right to access meaningful information and communication on the other hand (ITU, 2020). This applies to all companies that design, develop and deliver digital products and services, including but not limited to technologies that use data, such as generative AI, smart home devices, assistive technologies, games and social media applications (UNICEF, 2025). IT companies are increasingly criticised for exacerbating human rights risks (OECD, 2024). Therefore, it is essential that they stop violating children's rights, especially through abusive practices related to privacy and security, and actively avoid all forms of economic exploitation, discrimination and violation of freedom (Hartung, 2020). They must also listen to children and adolescents, who are still invisible and whose voices must be heard in the design and implementation of responsible business strategies, policies and practices, including corporate due diligence.
- 143.** Whereas these and potentially more responsibilities can be partly and easily achieved through industry's corporate social responsibility (CSR), progress in this regard is very slow. A 2022 analysis found a significant gap between corporate policies on children's rights and their implementation, with limited transparency on their impact. The digital marketplace scored the lowest on child protection, with only 20% of companies with product safety policies explicitly addressing children. While the telecommunications sector performed better, most companies fail to recognise children as a distinct stakeholder group (Global Child Forum, 2022). Similarly, a 2020 benchmark showed that only 16% of technology companies demonstrated a strong commitment to protecting children online, and by 2021, only 10% had basic human rights risk assessment processes in place (Mawson *et al.*, 2022).
- 144.** To this end, the use of words such as "integrity", "transparency" or "accountability", or expressions such as "doing the right thing" for both consumers and company staff have shown weak results in practice. Instead, there is important evidence that assessing their activities in company reports in terms of how the company has fulfilled values such as protecting children's rights, ensuring participation and evidence-based practices to prevent harm and making these reports public better contribute to both protecting rights and strengthening the public reliability of companies (Axjonow *et al.*, 2018).

VI.3.3. Improving IT businesses' digital trustworthiness

- 145.** Effective fulfilment of the responsibilities of companies requires them to go beyond the usual practice of rhetorical proclamation of ethical principles and values to merely improve their public image. Instead, they are challenged to implement different actions that allow potential consumers and citizens to be sure of the seriousness of their commitments

to protect children's rights and provide positive scenarios for their healthy development (Pucelj & Bohinc, 2024).

- 146.** Trustworthiness is an important asset for companies today. It expresses the way in which consumers and people appreciate the seriousness of a company to operate with responsibility, integrity and accountability (Milne, 2023). Loss of trustworthiness has huge consequences for companies, both in economic and symbolic terms.
- 147.** Compliance with existing regulations is undoubtedly an important factor contributing to business trustworthiness. But compliance is not enough. The public trustworthiness of companies seems to be based more on accountability procedures, active and permanent consultation, evidence-based decision making and transparency regarding both positive and negative decisions taken during a given accountable period. Well-structured procedures and actions, supported by high levels of corporate governance, is strongly linked to both the increase of public trustworthiness and the alignment of their operations with human rights-based ethical standards (Számadó *et al.*, 2021).

VI.3.4. Children's rights by design

- 148.** An effective framework for child online protection requires a holistic approach to creating safe, age-appropriate, and inclusive digital spaces for children, balancing protection with opportunities for digital citizenship. It encompasses response, support, prevention, and the shared rights and responsibilities of children and society. Given the rapidly evolving digital landscape, online protection must remain agile and adaptive to be effective (ITU, 2020).
- 149.** The implementation of the Children's Rights by Design (CRbD) standard by companies is a critical step in creating such a meaningful and safe digital environment. This standard not only ensures that due diligence procedures are in place to consult with various stakeholders, including children and adolescents first and foremost, but also promotes evidence-based decision-making (OECD, 2024). The standard requires that all online services and products used by children be designed, developed, and implemented in accordance with the UNCRC and the principle of the best interests of the child (Hartung, 2020). Key elements include proactive safety measures, user-focused design, ongoing risk assessment, and accountability. A safer digital environment also requires age assurance mechanisms, harm detection and prevention, privacy and data protection, child-friendly information, accessible channels for complaints and redress, child participation in decision-making, and a culture of safety and well-being (OECD, 2024). Only a digital world with these features will contribute to the mental health and well-being of children and adolescents.

- 150.** As digital environments grow more complex, there is increasing global recognition of the need for digital safety by design, alongside a broader focus on children's digital well-being and the responsibility of tech companies to implement high standards of protection (OECD, 2024; ITU, 2020). The term "safety by design" refers to efforts to construct user platforms and technology environments that are inherently safer for children, cordoning off the dangers. Safety by design standards integrate children's mental health and well-being as a primary consideration. The concept is still in development but draws inspiration from other engineered environments like automobiles or workplaces and their safety elements (WHO, 2022b).
- 151.** To prevent online violence against children, possible "safety elements are efforts to automatically exclude certain kinds of content, certain categories of users (adults, strangers), or certain behaviour from youth-serving environments" (WHO, 2022b). Other strategies from WHO's INSPIRE technical package include the implementation and enforcement of laws; norms and values (raising public awareness by direct communication with the community at large); parent and caregiver support; income and economic strengthening; response and support services; and education and life skills (WHO, 2016; 2022b)
- 152.** The UNCRC, in its General Comment No. 25 (2021), recognises that digital safety by design is necessary for fully protecting children's rights in the digital environment and recommends that safety by design be integrated into the services and products that children use, so as to minimise the risks they face in the digital environment.
- 153.** Safety by design may also need to be combined with other "by design" processes. Security by design and privacy by design have been advocated by the OECD and the UNCRC as a means of enhancing protections for children's rights and interests in the digital products and services that they use (OECD, 2021a; 2021b; UNCRC, 2021).
- 154.** By and large, a well-defined research framework is crucial to address the widespread use of AI by young people through digital devices and social media. Long-term human-AI interaction research should focus on psychological and cognitive effects, requiring multidisciplinary approaches, standardised protocols, and behavioural impact assessments (UNESCO, 2022). Ensuring the safety, effectiveness, and scientific validation of AI in healthcare, particularly in mental health and child-focused applications, is essential (UNESCO, 2022). Oversight mechanisms, impact assessments, and due diligence must be implemented to mitigate AI-related risks, with technical and institutional frameworks guaranteeing auditability and traceability (UNESCO, 2022). Discussions on regulatory oversight propose agencies like the U.S. Food and Drug Administration or the European Medical Agency to evaluate high-risk algorithms for safety and effectiveness (Tutt, 2017; Hilbert et al., 2024). The regulation of AI systems in healthcare, particularly in mental health, must ensure their safety, effectiveness, efficiency, and scientific and medical validation while fostering evidence-based innovation. Special attention is required for AI applications involving children, including toy robots, chatbots, and companion robots for both children and adults (UNESCO, 2022).

VII.

RECOMMENDATIONS

- 155.** In this report we have tried to spell out the enormous mental and psychological risks of inappropriate digital experiences for children and adolescents, without downplaying the bright sides of digital technologies for the youth. Although risk awareness in this domain is increasing all over the world, harmful digital consequences globally need to be identified and mitigated with much more effort, urgency, and stakeholder cooperation than has happened so far.
- 156.** Numerous different strategies are currently and increasingly under discussion. They range from reducing screen-time, protecting sleeping hours and banning smartphones from schools to safety by design, digital company responsibilities and/or digital resilience education. Rather than coming up with concrete strategies for protecting the youth from digital harm, we urge context-sensitive and evidence-based policy-making on all levels.
- 157.** A comprehensive approach to the digital environment that ensures children's and adolescents' rights to mental health while promoting access to the goods and opportunities it offers requires the joint action of various actors, including children and adolescents themselves, as well as a differentiated approach that takes in account gender, disabilities and other forms of inequality. To do this in a fair and transparent manner, stakeholders need to identify explicitly, acknowledge and manage the potential ethical challenges expected in efforts to promote children's freedom to use digital resources and to ensure their adequate protection from manipulation and other forms of threats. All actors are jointly responsible for implementing the following recommendations and ensuring a healthy mental environment for children and adolescents. Given the benefits and burdens associated with the digital environment, all stakeholders must continually collaborate to better understand how the digital environment impacts children's mental health and well-being and what key measures are available to protect them from harm and strengthen their access to opportunities. The IBC's recommendations are presented in six domains, all of which we consider to be of utmost importance.

VII.1. Parents and caregivers

- 158.** Effective protection of children's and adolescents' mental health relies on opportunities for their development and ensuring caring and protective relationships between them and their social environments that promote a sense of attachment, belonging, personal value, and positive regard, and decrease vulnerability to negative outcomes. Along with these obligations of providing integral care to children and adolescents, parents and caregivers must become role models who empower children and adolescents so that they can pursue fulfilling, integrated, and healthy lives. Also, regarding the digital environment, these agents must adopt responsible situated practices that actively regulate the time children and adolescents spend and the content accessible to them in the digital environment, as well as provide children and adolescents with proper advice and company to protect their mental well-being. This sort of experience must let them cultivate due self-care, decision-making responsibility, mutual and fulfilling relationships with other people,

valuable learnings, resilience, and satisfying and healthy relationships in both the digital environment and their overall lives.

- 159.** These responsibilities require the empowerment of parents and caregivers with digital and mental health literacy. The goal is to provide them with reliable information about the digital environment so they can guide children and adolescents, as well as offer them accessible information and professional advice on how to protect the mental health of the children and adolescents in their care. Public policies and programmes are crucial to make this empowerment real. School communities like parent-teacher associations can also provide support and learning opportunities.
- 160.** Using audio, graphics, simple interfaces and multiple channels for communicating relevant information to parents and caregivers must be encouraged in all settings.
- 161.** Digital and AI literacy programmes must equip parents, caregivers, and adolescents with the skills to critically evaluate their interactions with AI characters and recognise the limits of artificial companionship.

VII.2. Schools and educators

- 162.** The primary role of schools is to educate the next generation. In the era of AI, the creation of a positive educational environment needs to take care of the mental health and well-being of the pupils. Schools should be responsible for comprehensively educating teachers, students and parents on the appropriate use of digital tools and their adverse impacts on youths' mental health. Schools and educators should also role-model proper usage of digital tools. Educators should be trained to identify early signs of mental health problems among students and refer them appropriately.
- 163.** They should also create an open and inclusive environment that encourages students' involvement in the design and implementation of digital tools and policies, adapted to and respectful of age and decision-making capacity. Evaluations should take place periodically to protect their mental health and take advantage of the tools and opportunities that the digital environment provides in the emotional, cognitive and social domains. Educators and schools should always ensure a balanced use of digital technologies, avoid their excessive use, and instead emphasise direct human interaction among members of the school community. Towards that end, schools should have robust online harassment and cyberbullying policies.
- 164.** Considering that many children lack key critical thinking and safety skills for interacting with the digital tools and services, schools and educators should prioritise digital literacy with strong emphasis on responsible, productive, and safe use of digital resources. This can be achieved through cultivating critical thinking and safety skills and highlighting the known threats, possible strategies to mitigate them, and opportunities available including digital resources to enhance students' mental health and well-being.

- 165.** Educators should be mindful of the lack of equitable access to digital tools and contribute where possible to bridging the digital divide during school hours and for school-related assignments.

VII.3. Mental health services

- 166.** Digital technologies have the potential to improve the precision, accessibility, and personalisation of mental health care, offering innovative solutions for early detection and intervention. Therefore, the use of evidence-based digital technologies to provide mental health services is crucial and urgent given the global increase in the demand for these services worldwide. The way in which these technologies can ensure regulated and sustainable digital services fully justifies national and international organisations promoting the use of these services that are clearly safe and effective.
- 167.** Involving children and adolescents in the development of relevant and evidence-based digital tools is crucial as has been recognised by other international bodies such as OECD and UNICEF.
- 168.** Mental health professionals should receive ongoing training focused on better understanding, preventing, and detecting the risks of excessive and problematic digital use by children and adolescents. Furthermore, mental health services should, where possible, adopt and implement research programmes on the potential harms and benefits (including clinical benefits) of the digital environment for the mental well-being of children and adolescents.

VII.4. Policy makers

- 169.** States and civic organisations have the duty to promote the design and implementation of public policies that guarantee the protection of children and adolescents' mental health, focusing primarily on the following objectives:
- a.** Providing access to mental health resources;
 - b.** Reducing the digital divide, which excludes many children and adolescents from the benefits of learning, social connection, civic participation and self-development opportunities associated with the digital environment. To reduce digital inequality, policies must address infrastructure issues, inclusion, citizen education and programmes to foster the sociocultural adaptation of languages, platforms, and large-scale digital projects. This includes equipping schools with the necessary digital tools to support students who may not have home access. It also includes providing access to digital mental health services;

- c.** Promoting deep research to help overcome the social determinants underlying digital inequalities and the impacts of digital environments on children's and adolescents' mental health in situated contexts. Providing adequate funding for addressing these issues requires both national and international commitment to protect children's and adolescents' mental well-being;
- d.** Requiring the IT industry to abide by the regulatory requirements regarding content, safeguards, and user/consumer consultation and service practices in the private digital technology sector. In addition, enforcing norms protecting children and adolescents from the harmful effects of the digital environment, including ensuring that the private sector follows our recommendations to the IT industry (see Section VII.6);
- e.** Ensuring that digital literacy is included in the educational curriculum and providing public access to digital literacy resources; and
- f.** Ensuring that research policies prioritise research on the harmful effects of the digital environment on the mental health of children and adolescents.

VII.5. Civil society

- 170.** NGOs, orphanages and other community organisations dedicated to protecting the rights and well-being of children and adolescents must promote public awareness about the potential harms of the digital environment to their mental well-being, contribute to the adoption of best practices to prevent harm, and facilitate access to the goods and opportunities available in the digital environment. Contributions include initiatives for the development of legal instruments, campaigns to help children and adolescents navigate the digital environment in a critical and healthy way, training for parents, teachers and caregivers on how to protect the rights and well-being of children and adolescents, supporting research on the types and magnitude of harm suffered by children and adolescents in the digital environment, and civic education activities on these issues, among others.

VII.6. IT businesses

- 171.** In the context of CSR, IT businesses must respect and support children's rights through not only their core business actions, but also their policy commitments, due diligence and remediation measures. To this end, UNICEF's Children's Rights and Business Principles should be adopted by IT companies, taking in consideration the guidance given by the UNCRC's General Comment No. 25 as well as the measures and recommendations of the documents of international organisations regarding children's rights and the digital environment. The international community should urge IT companies to implement measures to prevent harmful content that specifically target children.

- 172.** Stakeholders, especially IT businesses, must work and invest in strategies that empower children to navigate the digital world while prioritising mental health and promoting a shared understanding of online threats to mental well-being, to create a safer digital environment. In this regard, they must raise awareness about the importance of protecting the mental health of children and adolescents and monitoring and regulating (censoring) potentially harmful content.
- 173.** Children's rights must be particularly considered when designing the business model to avoid generating, promoting or aggravating behaviours that negatively impact the well-being and mental health of children and adolescents. This includes products and services that are specifically designed for or targeted at children, as well as those that are not targeted at children but may be used by them.
- 174.** The implementation of the Children's Rights by Design (CRbD) standard by companies is a critical step in creating a safe digital environment. A safety by design standard integrates children's mental health, well-being and prevention of online violence as a primary consideration.
- 175.** Oversight mechanisms, impact assessments, and due diligence must be implemented with technical and institutional frameworks guaranteeing auditability, transparency and traceability.
- 176.** AI developers should prioritise safeguards that prevent the exploitation, manipulation, and the erosion of real-world relationships. Such measures may include clear disclosures, regular reminders that adolescents are interacting with a bot, and features designed to encourage healthy offline engagement.
- 177.** IT Companies must establish robust accountability mechanisms based on transparent procedures and consumer protection guarantees. Advancing research on how digital environments protect or undermine children's and adolescents' mental health requires unprecedented data transparency from technology companies. Given the inherent conflict of interest when companies evaluate their own products' impacts, technology companies have, in the best interest of the child, an obligation to:
 - a.** Provide independent researchers and regulatory bodies clear, comprehensive, and methodologically sound data access under appropriate privacy protections, while supporting the infrastructure necessary for rigorous, conflict-of-interest-free scientific investigation;
 - b.** Provide data on mental health impacts;
 - c.** Commit to leveraging shared research tools and standardised methodologies; and
 - d.** Participate in funding independently-run research initiatives to characterise both the short-term and long-term mental health consequences of children's and adolescents' engagement with the digital environment (devices, services, and software). Independent agencies or multi-stakeholder groups should oversee this research to ensure ethical accountability and independence from commercial interests.

VII.7. Other groups / Other sources of influence

- 178.** All members of society must prioritise the mental health and well-being of children and adolescents, contributing to reducing inequalities, mitigating risks, and promoting the benefits of the digital environment. Professional associations, cultural groups, religious communities, media outlets, businesses, unions, public entities, and individuals must all contribute to raising awareness about the potential harm the digital environment can cause to the mental health of children and adolescents, as well as protecting them and promoting the healthy use of the opportunities it offers. All citizens, as regular participants of the digital environment, must commit to this objective and act accordingly.
- 179.** Anyone whose words, actions or modelling in the digital environment may be heard and followed by children and adolescents also bear the responsibility to contribute to the promotion and protection of their mental health and well-being.

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ETHICAL CONSIDERATIONS FOR **YOUTH MENTAL HEALTH** IN THE DIGITAL ENVIRONMENT

Today's children and adolescents are growing up more connected than ever, navigating a vast and unprecedented digital landscape that often feels opaque and overwhelming to parents, educators, and caregivers. What opportunities and risks does it hold for them, and how can we address these questions ethically?

This report by UNESCO's International Bioethics Committee (IBC) goes beyond weighing the benefits and harms of the digital environment on the mental health and well-being of young people. Rather, it also explores the ethical challenges involved, including the best interests of children, their autonomy, the unequal impacts of the digital environment across socio-economic contexts, as well as the shared responsibility of all stakeholders — from parents to the digital industry.

This report is a strong call for the rights and needs of young people to be placed at the heart of the design and deployment of digital technologies and platforms. It also advocates for a comprehensive, multi-stakeholder approach that protects children and adolescents from harm and manipulation while safeguarding their freedom to explore, learn, and participate meaningfully in the digital sphere.



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