

PERSPECTIVE

Health in the Digital Age: Where Do Children's Rights Fit In?

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Introduction

The Universal Declaration on Human Rights, adopted in 1948, proclaims that children and childhood are entitled to special care and assistance. Almost four decades later, the United Nations Convention on the Rights of the Child (CRC) was developed to provide further guidance on the full spectrum of rights that children—defined as people under the age of 18 years—are entitled to.¹ The scale of digital transformation, and influence of digital technology in all aspects of our lives, could not have been imagined by those involved in creating these foundational human rights instruments related to children. Nevertheless, the guidance that these instruments provide is as valid in the digital age as it has ever been.

If states were already in conformance with the CRC, children's rights would be at the front and center of all decisions about the design, development, use, and governance of artificial intelligence, digital technologies, and the data they generate. However, as in the analog age, children's rights are often an afterthought, or ignored altogether. Too little consideration is given to how different aspects of digital transformation might concern children, including the potential influence on their right to health. This results in digital tools and approaches that are blind to the needs and views of children, or worse, that undermine their rights and cause harm.² Recent measures taken by social media platforms to reduce harmful content are recognition that insufficient attention to children's rights in the design of digital technologies can have tragic consequences for children's health and well-being.³

Children are major users of digital platforms: globally, it is estimated that at least one in three internet users are children.⁴ As digital infrastructure improves and the cost of connectivity falls, more children, particularly in low- and middle-income countries, are set to come online over the next decade. This opens up huge opportunities for children currently excluded from participating in the digital world and also for private companies or political groups that seek to exploit, market to, or harvest the data of this new cohort of digital natives. More and more aspects of childhood are taking place online, from play to learning to connecting with friends and family (a shift that has accelerated rapidly since the COVID-19 pandemic),

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which makes it increasingly urgent that states, technology companies, and other relevant actors be reminded of their obligations to promote and protect children's rights in the digital environment.

In recent years, a growing number of scholars and child rights advocates have been championing children's rights in a digital age.⁵ Children's rights specifically in relation to the digital transformation in health is an area that has not yet been considered in depth. This essay explores the need to protect and promote children's right to health in a digital age and to ensure that digital transformation in health promotes children's rights. The CRC is proposed as a framework for digital health actors to assess the potential impact of their decisions and actions on children's rights.

What are the implications of digital transformation for children's right to health?

Article 24 of the CRC recognizes the right of the child to the highest attainable standard of health. The digital transformation offers huge opportunities for realizing this right through improving the availability and quality of health services for children, strengthening health systems, and empowering children with the knowledge and tools to manage their own health. Children use a range of digital tools—such as websites, social media, mobile phone apps, and wearable devices—to find and share health advice, track their activity and well-being, and create health promotional content themselves.⁶ Social determinants of child health such as family income, education levels, and the environment that children live in can also be positively influenced by digitalization in other sectors.

Being digitally connected to friends, family, and the wider world is increasingly important for children's well-being.⁷ However, a growing body of evidence suggests that the improper application and use of digital technologies can have negative implications for children and their right to health. Without adequate knowledge, skills, and support from caregivers, children's exploration of the digital environment can expose them to harmful content,

misinformation, and multiple forms of abuse. Digital marketing is a rapidly growing business that makes children vulnerable to the promotion of unhealthy foods, harmful products, and damaging ideas about body image. New forms of digital marketing are particularly concerning, as they can be hard to distinguish from other content, particularly for younger children. Excessive time spent online is believed to be detrimental to the mental health and well-being of children and can displace other forms of physical activity, although there is no consensus on how much time online is too much.⁸

Asides from the direct hazards that the use of digital technology can present to children's right to health, there are also risks that digitalization and new innovations are not being harnessed to their full potential for children. Most digital tools and approaches are not developed with children in mind—as primary or even potential users—so opportunities are being missed for technology to contribute to their better health, well-being, empowerment, and participation.⁹ COVID-19 has revealed the huge digital divide between those who have access to the infrastructure, digital devices, and affordable data packages needed to get online, and those who do not. Without concerted efforts, further digital transformation may increase inequalities in health outcomes and other outcomes important for children to thrive.

Applying a child rights lens to digital health

Children's right to health should be taken into account at all stages of digital transformation, and, equally, children's rights in their entirety should be considered in relation to the transformation of different sectors, including health.

As in other sectors, digital transformation in health is driven by data. Children, and often their caregivers, have limited knowledge and power to control the increased datafication and monitoring of their lives.¹⁰ In the pursuit of valid health goals, state and nonstate actors use a multitude of digital devices to capture children's data, even before they are born.¹¹ Biometric data is captured, for ex-

ample, to boost vaccination rates with insufficient consideration of any unintended consequences on the enjoyment of other rights.¹² Health data that enable people to be located, for example, can put children—particularly those from marginalized groups—at risk of discrimination or persecution.¹³ Information in the public domain about a child's health status can be used against them in the future, such as by employers or insurance companies.

Existing normative and technical guidance on the digital transformation of health systems and health care does not apply, or encourage others to apply, a holistic child rights lens that takes into account the opportunities and risks of digital health for children. For example, the World Health Organization and International Telecommunication Union's *eHealth Strategy Toolkit*, a document that guides member states in the development of digital health strategies and approaches, includes no references to human rights or children's rights.¹⁴ The 2018 World Health Assembly resolution on digital health urges member states to consider human rights obligations only in relation to policies and legislation around data protection.¹⁵ The World Health Organization's forthcoming *Global Strategy on Digital Health 2020–2024* speaks only in general terms about the importance of the appropriate use of technologies to protect against human rights violations. Children are not referred to as potential beneficiaries to be prioritized in the digitalization process, or as a group of rights-holders requiring special protection. *UNICEF's Approach to Digital Health* is the strongest example of a digital health approach that is grounded in the right to health, although it does not explore all the ways in which digital health could promote or undermine children's other rights, such as their rights to protection, nondiscrimination, and participation.¹⁶

Using the CRC as a framework to evaluate digital health tools and approaches

The CRC provides a ready checklist for all digital health actors—including those involved in information and communications technology infrastructure, technology developers, policy

makers, regulators, health care providers, and civil society—to assess the potential positive and negative consequences of a digital health approach or intervention on children's rights. The four general principles of the CRC offer a starting point:

- *The right to life, survival, and development (article 6)*: Do digital health policies and investments prioritize children's right to life, survival, and development? How can digital health policies and interventions mitigate the risks to children's right to life, survival, and development within the broader digital environment?
- *The right to nondiscrimination (article 2)*: Will a digital health intervention be available and accessible to all children regardless of their or their parents' status? What measures will be put in place to ensure that automated decision-making to support children's health isn't based on biased algorithms or datasets? How will children's health data be protected so that it can't be used to discriminate against them in later life?
- *The best interests of the child (article 3)*: Is a digital health intervention being developed with the best interests of the child in mind? What potential harms to children, or violations of their rights, might arise from the application of a digital health intervention or from the collection or use of their health data?
- *The child's right to be heard in matters that affect them (article 12)*: How will children be involved in the design of a digital health policy or intervention? How will children's views be considered in each stage of its development and use? What knowledge and support do children need for informed and meaningful engagement in digital health development and governance?

Digital health actors should also ask how their approach or intervention will support other child rights and how any potential violation of these rights will be mitigated. This would include the rights to protection of identity and privacy (arts. 7 and 16); protection against harmful information and material (art. 17(e)); protection against physi-

cal and mental violence, injury or abuse, sexual exploitation and abuse, and all other forms of exploitation (arts. 19 and 34–37); freedom of expression and thought (arts. 13–14); information, knowledge, and education (arts. 17, 24, and 28–29); physical and psychological recovery and social reintegration of a child victim of neglect, exploitation, abuse, or armed conflict (art. 39); and play, leisure, and culture (arts. 30–31).

Several general comments have been developed by the Committee on the Rights of the Child that help interpret the CRC in the digital age and provide further guidance to state and nonstate actors about the potential effects of digital technology on children's right to health:

- *CRC General Comment 15 on the right of the child to the enjoyment of the highest attainable standard of health* calls on states to invest in innovative technologies as a way of reaching vulnerable groups of children. It also urges states to ensure that health information systems are reliable and transparent and protect the right to privacy. It calls on all nonstate actors engaged in health promotion and services to act in compliance with the CRC and to ensure compliance by any partners who deliver services on their behalf. Mass media organizations are called on to promote health and healthy lifestyles among children; to ensure the privacy and confidentiality of children and adolescents; and not to advertise substances or produce content that is harmful to health or that perpetuates health-related stigma.¹⁷
- *CRC General Comment 16 on state obligations regarding the impact of the business sector on children's rights* reinforces the call to businesses to strengthen the realization of children's rights (for example, through technological advances) and to meet their responsibilities regarding children's rights. It calls for digital media to be regulated to protect children from harmful information and material.¹⁸
- *CRC General Comment 20 on the implementation of the rights of the child during adolescence* notes

that the internet provides opportunities for adolescents to access health information, protective support, and counseling. It can also be used by states to communicate and engage with adolescents. The general comment calls on states to adopt measures to promote equal access to digital citizenship and to ensure that all adolescents have access, without discrimination, to different forms of media and support. It recommends digital literacy training and support as part of the basic education curriculum and encourages states to require businesses to undertake child rights due diligence with a view to identifying, preventing, and mitigating the impact of risks on children's rights when using digital media and information and communications technology.¹⁹

To protect and promote children's right to health in a digital age, and to ensure that digital health promotes children's rights, everyone involved in the digital transformation in health and other sectors must take proactive measures to implement the CRC and make children's rights a core guiding principle in the design, use, and governance of technology and data.

All relevant actors should use the CRC as a framework to assess the potential benefits and risks for children of any digital health technology or data-related policy or intervention. Indeed, Sonia Livingstone has proposed that a child rights impact assessment be required before any digital innovation is developed.²⁰ States that have ratified the CRC should fulfill their own obligations and use legislation and policies to ensure that nonstate actors involved in digital health also realize children's rights.

Further guidance on the horizon

The Committee on the Rights of the Child is currently developing a new general comment on children's rights in relation to the digital environment.²¹ The general comment, which is due to be published in 2021, will offer further direction to states on meeting their obligations to promote and

protect children's rights—including the right to health—in the digital environment and to ensure that other actors, including private businesses, also meet their responsibilities.

Clarity on children's rights in the digital environment will not automatically lead to those rights being protected. States and regional bodies need to develop stronger policies and regulations to safeguard children and their data in the digital environment and to hold those who fail to realize children's rights to account. Children's views must be regularly sought and acted on by policy makers and technology developers. Stronger global governance and technical cooperation is also needed to ensure that the achievement of global health goals is not pursued at the expense of other rights. The Governing Health Futures 2030: Growing Up in a Digital World commission convened by the *Lancet* and *Financial Times* will supply urgently needed recommendations on the governance of digital technologies in relation to health, human rights, and public goods.²²

Digital technology and data analytics continue to advance at speeds that policy makers can rarely keep up with. The opportunities and risks around health in the digital age are not yet fully known and will continue to evolve. The environment that children are growing up in may be changing, but their rights remain unassailable both on and offline. That is why the CRC and other human rights instruments must continue to provide a compass for everyone involved in digital development. When children's rights are at the front and center of all decisions about the design, development, use, and governance of digital health technologies and health data, then we will all fully benefit from their transformative potential.

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