

Children's rights and digital technologies

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Abstract

Digital technologies have reshaped children's lives, resulting in new opportunities for and risks to their well-being and rights. This chapter investigates the impact of digital technologies on children's rights through the lens of the United Nations Convention on the Rights of the Child. Up until now, not all rights have received the same level of attention in the digital context. Legal and policy discourse in the area of children and digital media predominantly focuses on 'protection' rights, albeit with a growing awareness of the tension between 'protection' and 'participation' rights. 'Provision' rights are not often emphasised, other than in the important domain of education. However, all children's rights should be supported, valued and developed in both online and offline spheres of engagement. Governments, parents, educators, industry, civil society and children's rights commissioners or ombudspersons should all take up their responsibility to enhance children's rights in relation to digital technologies, while actively listening and taking account of children's views when developing laws, policies, programmes and other measures in this field.

Keywords: children's rights, minors, online protection, online participation, privacy, internet, internet governance, digital environment

Introduction

"New Information and Communication Technologies (ICT) affect children's enjoyment of a significant number of fundamental rights guaranteed by the UNCRC, the European Convention on Human Rights and the European Social Charter. According to recommendations issued by the UN Committee on the Rights of the Child, all children should be able to safely access ICTs and digital media, and be empowered to fully participate, express themselves, seek information and enjoy all the rights enshrined in the UNCRC and its Optional Protocols without discrimination of any kind."

(Council of Europe Strategy on the Rights of the Child 2016-2021, 20)

As internet access becomes increasingly accessible and affordable through a range of devices and settings, the digital environment is already an integral part of the lives of many people across the globe. According to the ITU, in Europe 80 per cent of the population is online, in the Americas 75 per cent, in the CIS region 78 per cent, in the Arab States, Asia and Pacific 40 per cent and in Africa 25 per cent (ITU 2016), although investment in the latter areas predict a higher uptake in the near future (Byrne et al. 2016). Of all internet users worldwide, an estimated one third are children

aged under 18 years old (Livingstone et al. 2015). Information and communications technologies (ICTs) defined broadly are reshaping children's lives, resulting in new opportunities for and risks to their well-being and rights. Families, schools and communities are embracing digital technologies as part of the taken-for-granted infrastructure of society in the digital age. The opportunities include learning, play, health, communication and participation, while the risks to children's safety, privacy, mental health and well-being are equally wide-ranging (OECD 2011, 2012).

The digital environment continues to develop rapidly, led by the market ambitions of global companies and innovative new services, and shaped by institutional policies and practices at national and international levels as well as by the evolving interests and behaviours of individual users. In terms of children's direct engagement with ICT as well as the institutional management of contents and services that affect the conditions of their lives, drawing the line between offline and online is increasingly difficult and artificial.

While international bodies as well as governments are actively promoting ICT access and investment so that businesses can innovate and compete in the global economy and society benefits from informational, civic, educational and other opportunities (UN Human Rights Council 2016), some organisations are alert to the child rights issues that arise. They are increasingly collaborating with other stakeholders to empower and protect children in relation to the digital environment. Notably, the United Nations (UN) Committee on the Rights of the Child emphasised the importance of children's rights in relation to digital media at its Day of General Discussion in 2014 (CRC DGD 2014). But current structures of governance and policy do not always recognise or address the implications for children's rights (Livingstone et al. 2015), as specified in the UN Convention on the Rights of the Child (UNCRC), the European Convention on Human Rights (ECHR) and other policy documents of supranational organisations such as the Council of Europe (CoE) or the European Union (EU). Both research evidence and the experiences of stakeholders and child rights organisations suggest that children's lives are mediated by the digital environment in ways that influence how they can exercise their rights and how their rights may be enriched or infringed, supported or neglected (Third et al. 2014). While specific questions arise regarding what might be called children's "digital rights" (such as the so-called right to be forgotten, or to consent to terms and conditions or privacy policies of online services or apps, or to digital literacy), more importantly almost every human right now has a digital dimension, inviting reconsideration of many of the articles of the UNCRC in relation to the digital environment.

Whether the digital environment is seen as a potential threat to or enabler of children's rights, it can no longer be ignored as a factor in children's well-being and development. This chapter investigates the impact of digital technologies on children's rights through the lens of the UNCRC. Although written before the present contours and consequences of the digital environment could be foreseen, the UNCRC was highly prescient in emphasising the importance of communication contexts as crucial means by which children can exercise their rights. Some articles are already addressed by existing human rights instruments or by governance practices in some countries. Others have received less attention or are now posing new challenges as the digital environment continues to evolve.

In the following sections, we discuss how the various specific UNCRC rights are particularly relevant to the digital environment and how they could be (re)interpreted. We also identify challenges related thereto and provide suggestions to address gaps or take into account the multi-dimensional aspects of certain rights. We structure the discussion by considering, first, the four general principles of the UNCRC as they apply to the digital environment. We then consider those

articles of the UNCRC that are particularly relevant to that environment, before considering more briefly the necessity for appropriate remedies and review, and noting the problematic tendency of existing frameworks to prioritise protection over participation, rather than finding better ways of resolving such conflicts among rights as inevitably arise.

The UNCRC through a digital lens

1. Definitions and general principles

a) Definition of a ‘child’ (Article 1 UNCRC)

The UNCRC 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). The drafters of the UNCRC, while eager to ensure that it would apply to as wide an age group as possible, also acknowledged the need for some degree of flexibility, particularly in relation to those countries in which the established age of majority is other than eighteen years (Detrick 1999). The age of majority may be described as the age at which a person normally becomes an adult in the eyes of the law. From the perspectives of law and policy, children are (for the most part) defined in terms of chronological age – and the age threshold selected varies depending on the purpose of the law or policy in question (for example, consent to sexual activity, consumption of alcohol and tobacco, army enlistment or leaving school).

In relation to media and digital environments, theories of child development have historically guided age-based restrictions on children’s media access (in relation to advertising, or sexual and violent content, for instance) (Livingstone 2007). Such theories also informed the United States’ Child Online Privacy and Protection Act (COPPA) which today guides social media companies such as Facebook in setting the age of 13 as its minimum age for use (Montgomery and Chester 2015). However, the evidence base informing decisions on such age-based restrictions to use digital services or applications is largely unclear or out of date (eNACSO 2016). This has been notably problematic, for example, in the recently adopted EU General Data Protection Regulation (GDPR), which will restrict the processing of children’s personal data by providers of online information services without parental permission under the age of 16 (unless member States decide to reduce this to 13 years old by 2018) (Lievens and Verdoodt 2017). As laws and policies restricting children’s access to certain types of media content depending on their specific age may have a significant impact on children’s exercise of their right to freedom of expression and freedom of association (United Nations Committee on the Rights of the Child 2015), the imposition of age limits should be justified, evidence-based, and rooted in scientific theory.

The importance of taking into account the evolving capacities of children in the digital environment has recently been highlighted in the General Comment on the Rights of Adolescents of the UN Committee on the Rights of the Child (CRC/C/GC/20 2016a). Although the General Comment refrains from defining adolescence, it does point out that the recommendations from the Day of General Discussion on the media in 1996 and 2014 have particular resonance for adolescents and their right to information and access to media. At the same time, research has also shown that children even under the age of eight years old are already active citizens in the digital age

(Chaudron et al. 2015), although there still remain significant gaps in knowledge with regard to their access to and uses of technology and its consequences.

b) Right to non-discrimination (Article 2 UNCRC)

Article 2 is one of the four general principles of the UNCRC (CRC/GC/2003/5 2003) and, as such, of the utmost importance for children in the digital environment. Indeed, the underlying idea of this article is that children have a right not to be discriminated against (Abramson 2008). As an umbrella right, the right to non-discrimination is attached to or forms part of other rights such as the ones discussed below (Abramson 2008). The UN Committee on the Rights of the Child (2003) highlights that, in order to address discrimination, States may have to implement changes in their national legislation, administration and allocation of resources, but also in their educational system to change attitudes. In relation to digital technologies and the right to non-discrimination, several considerations are relevant.

Non-discrimination first of all requires equality of children's access to the digital environment. As a gateway for many forms of provision and participation, internet access is becoming ever more taken for granted as a means of ensuring child rights, and in consequence, lack of (sufficient or reliable) access is a pressing problem for large groups of children across the world. These are often those who are already vulnerable or marginalised in society. According to the UN Committee on the Rights of the Child (2003), the right to non-discrimination requires States to actively identify those children or groups of children that may need special measures for the recognition and exercise of their rights. Thus it is important to sustain and extend policies to overcome digital exclusion in its different forms. Such policies should be constructed in such a way that the policy objectives contained therein apply to all children (i.e., so that policies are truly non-discriminatory). In other words, inequalities in access may render a 'one-size-fits-all' approach ineffective – therefore, policies should be adaptable or flexible to the extent that they address the needs of all children (e.g., children with disabilities (Alper & Goggin 2017), children living in poverty, children from minority groups, child refugees or those displaced by armed conflict, children of imprisoned parents, and other vulnerable groups who may not be reached by schools or supported by parents).

Second, it is crucial to educate children about their right to non-discrimination in a digital context. This entails two elements, the first of which is to provide children with the necessary tools and skills to act against and deal with the harms that may result from *inter alia* online discrimination or hate speech (McGonagle 2012). On the other hand, children should also be informed about their responsibility not to be discriminatory in their own interactions with others in the digital environment, thereby acknowledging children's role as creators and distributors of content, and not solely as consumers of content.

As a further consideration, it is important to address gender discrimination and promote equality between girls and boys in relation to digital technologies. In this regard, States are encouraged by the ITU to adopt a gender-based perspective and to foster a gender balance to secure equal opportunities through the use and appropriation of telecommunications/ICTs (ITU 2014b). The Parliamentary Assembly of the Council of Europe has also called on States to take action against stereotypes, sexism and over-sexualisation in digital media through education and recognise the

important role providers of new media such as social networks or video-sharing platforms could play (Council of Europe 2016d).

c) Best interests of the child (Article 3 (1) UNCRC)

According to the UN Committee on the Rights of the Child (2003) article 3 (1) entails that “every legislative, administrative and judicial body or institution is required to apply the best interests principle by systematically considering how children’s rights and interests are or will be affected by their decisions and actions”. In its General Comment No. 14, the Committee (CRC/C/GC/14 2013a) clarified that the ‘child’s best interests’ is a threefold concept, i.e. a substantive right, a fundamental interpretative legal principle and a rule of procedure. Hence, every decision and action that may have repercussions on a wide array of children’s rights in the digital environment should actively take into account the child’s best interests. As the digital environment is such an inherent part of children’s lives, with the potential to – both positively and negatively – impact their rights to, for instance, freedom of expression, privacy and protection, a balanced assessment of children’s interests should be at the centre of policy-making and decision-making practices.

Although the first paragraph of Article 3 UNCRC rather implies that the best interests of a child must be assessed *individually* (CRC/C/GC/14 2013a, para. 22), in many decisions that relate to the digital environment this is not what will happen in practice. For instance, the EU General Data Protection Regulation sets an age threshold from which a child can consent with the processing of his or her personal data in relation to information society services. This entails that, although children of that particular age may have a very different understanding of digital data collection practices their individual levels of understanding or maturity in this respect will not be taken into consideration. This stands in contrast with situations where children consent, for instance, to medical procedures (Kilkelly 2015) or to participation in research. In such cases, the best interests of that individual child are at the centre of the consideration. Yet, it is hard to imagine that such an individual assessment would be practically feasible in today’s digital environment. However, States do have an obligation to assess and take as a primary consideration the best interests of children as *a group or in general* (CRC/C/GC/14 2013a, para. 23), for instance in their policy-making or legislative actions. This demands a thorough and balanced child rights impact assessment, which must take into account children’s views as well as protection versus empowerment factors (CRC/C/GC/14 2013a, para. 35). Moreover, States are also required to ensure that the best interests of the child have been assessed and taken as a primary consideration in decisions and actions taken by the private sector (CRC/C/GC/14 2013a, para. 14). In the digital environment this implies ensuring that technology companies or platform providers take into account the best interests of children when their products and services are being used by them (see below). Moreover, in terms of remedies or redress mechanisms (for instance, when children report being bullied or harassed), the best interests of the individual child should be considered.

d) Right to life and States parties’ obligation to ensure to the maximum extent possible the survival and development of the child (Article 6 UNCRC)

A further general principle of the UNCRC can be found in Article 6, which ascertains the right of the child to have his or her life protected from the moment of birth, as well as the right to survival and development. It has been argued that Article 6 is much broader than the mere survival of the child (Nowak 2005). Indeed, the UN Committee on the Rights of the Child interprets development as a holistic concept, with several dimensions, including a physical, mental, spiritual, moral and social dimension (CRC/GC/2003/5 2003). Hence, it is the platform for the other developmental principles of the UNCRC, including *inter alia* the principles related to the child's best interests and evolving capacities, as well as other provisions that may contribute to children's development in the broadest sense (Lansdown 2005). There is a very clear link for instance with the right to education as Article 29 UNCRC refers to one of the goals of education as 'the development of the child's personality, talents and mental and physical abilities to their fullest potential'). Furthermore, the UN Committee on the Rights of the Child (CRC/C/GC/20 2016a) has – in relation to adolescents – explicitly linked the right to development to 'measures to help them to thrive, explore their emerging identities, beliefs, sexualities and opportunities, balance risk and safety, build capacity for making free, informed and positive decisions and life choices, and successfully navigate the transition into adulthood'. As will be shown below when discussing specific rights, all of these developmental goals are facilitated, and sometimes challenged, by the digital environment.

e) Right to be heard (Article 12 UNCRC)

Article 12 is another one of the four general principles of the UNCRC (CRC/GC/2003/5 2003) and ascribes to children the right to be heard in all matters affecting them, to participate in all decision-making processes having a bearing on their lives and to exert influence over such decisions in accordance with their age and maturity. It places an obligation on State parties to the UNCRC to truly involve children in all matters affecting them. Article 12 is considered an integral part of the implementation of the other articles of the UNCRC (e.g., Articles 13 and 17; *infra*) and applies to all children capable of forming views and not merely those capable of expressing views (Van Bueren 1998). According to the UN Committee on the Rights of the Child (CRC/C/GC/12 2009):

"The views expressed by children may add relevant perspectives and experience and should be considered in decision-making, policymaking and preparation of laws and/or measures as well as their evaluation [...] The concept of participation emphasizes that including children should not only be a momentary act, but the starting point for an intense exchange between children and adults on the development of policies, programmes and measures in all relevant contexts of children's lives."

The digital environment now constitutes one such 'relevant context' and therefore children and young people should be meaningfully involved in the decision-making processes leading to the creation of policies in this field. While children are most often represented in policymaking (by NGOs, Children's Ombudsmen, etc.) they are not generally involved in an active and meaningful way in the actual policymaking process (Lievens 2017, Livingstone et al. 2015). However, the UN Committee on the Rights of the Child (CRC DGD 2014) recently recommended that States should promote:

"the exchange and sharing of ideas, information, experiences and good practices, including through the creation of platforms, with all stakeholders, especially children, at the national, regional and international level".

The Committee also asked States to ensure that “children are consulted in order to take into account their views and experiences in developing laws, policies, and programmes and in the setting up of services, and other measures relating to digital media and ICTs” and that they are “actively engaged in the design and implementation of initiatives aimed at fostering safe use of digital media and ICTs”. Moreover, companies that provide content or services to children should consult them and incorporate their interests into their Corporate Social Responsibility (CSR) strategies (Lievens 2017; also UNICEF et al. 2012). The Guidelines for Industry on Child Online Protection, published by the ITU (2014a) in October 2014, for instance, recommend that industry draws “upon internal and external expertise and consult with key stakeholders, including children, on child online safety mechanisms to obtain ongoing feedback and guidance on company approaches”.

2. Rights that are particularly relevant in the digital environment

a) Right to freedom of expression and information (Article 13 UNCRC)

Article 13 ascribes to the child the right to “seek, receive and impart information and ideas of all kinds” through any medium. It has a broad scope of application, which extends to traditional, but also new and even future media. It has been acknowledged that this right is important for the development of the child and that the right itself is not affected by the fact that children may not have the same capacities as adults (Smith 2015). The digital environment provides children with remarkable opportunities to express their opinions and connect with others, for instance on social networking sites or blogs, and to seek information on topics that are important to them, such as their health, identity or sexuality.

Article 13 is not an absolute right, and, hence, does allow for certain restrictions by governments. Such restrictions must have been laid down in law, and be necessary for respect of the rights or reputations of others, or for the protection of national security, public order, public health or morals. In any case, the child's exercise of the right to freedom of expression is to be construed in line with Article 3 UNCRC, which embodies the 'best interests' principle and is also linked to Article 5 UNCRC which requires State parties to “respect the responsibilities, rights and duties of parents” (and, where appropriate, those of the wider family and community) to direct and guide children in the exercise of the rights contained in the Convention “in a manner consistent with the evolving capacities of the child” (Lopatka 1996).

The combination of these articles entails that, in the digital environment, certain restrictions may be imposed on children’s right to freedom of expression and information by states, schools, or parents, for instance by blocking or filtering access to content. In such cases, the latter actors must carefully consider whether it is in the child’s best interests to impose limitations, and whether such limitations unduly restrict children’s use of or access to certain types of expression (e.g., sexual expression) (Smith 2015).

The child's right to impart information to others is also of particular importance in the context of the digital environment as children are no longer mere receptacles of content but are also creators and distributors of such content. It is important to acknowledge children's dual role of user/consumer and creator. Whereas Article 19 ICCPR (as well as Article 10 ECHR) contains a reference to the fact that the right to freedom of expression "*carries with it special duties and responsibilities*", this clarification has not been integrated in Article 13 UNCRC. However, in light of their dual role, children must be made aware of the potential negative impact of their expressive activities (e.g., racist, hateful and threatening expressions) in the digital environment as well as of the benefits of such activities for personal, social and civic relationships.

b) Right to freedom of association (Article 15 UNCRC)

Daly (2016) refers to Article 15 UNCRC as "potentially remarkably broad, spanning children's family relationships, to rights concerning school attendance, to rights in public spaces." While Article 15 UNCRC requires that "States Parties recognize the rights of the child to freedom of association and to freedom of peaceful assembly," the CoE's Guide to Human Rights for Internet Users explains how these rights apply – in fact to all users – in the digital context:

1. "You have the freedom to choose any website, application or other service in order to form, join, mobilise and participate in social groups and assemblies whether or not they are formally recognised by public authorities. You should also be able to use the Internet to exercise your right to form and join trade unions;
2. "You have the right to protest peacefully online. However, you should be aware that, if your online protest leads to blockages, the disruption of services and/or damage to the property of others, you may face legal consequences;
3. "You have the freedom to use available online tools to participate in local, national and global public policy debates, legislative initiatives and public scrutiny of decision making processes, including the right to sign petitions and to participate in policy-making relating to how the Internet is governed."

It is unknown whether these rights are respected for child users, in particular by those providing or regulating social, civic and political spaces online, since few independent evaluations are conducted regarding the implementation of child rights online – and with no evidence at all available in most countries around the world (Livingstone et al. 2015). But where research exists, it appears that children indeed exercise their civic and political rights to expression and association in digital environments, notably in countries where such opportunities are sorely needed (e.g. Lebanon, Khalil 2017; Palestine, Asthana 2017).

Daly (2016) states that "children need their rights to associate with friends in public to be vindicated through Article 15 UNCRC because, to a greater degree than adults, they often have nowhere else to go." This statement is arguably as applicable to the digital environment as it is to the offline environment. In other words, children should be able to exercise their rights to associate and assemble with friends and others, online as offline, including the right to protest peacefully, whatever cultural norms may dictate. This is particularly applicable, perhaps, to certain groups of children (e.g., LGBT children, refugee and migrant children) who are too easily side-lined in their needs and rights, including their right to freedom of association. However, the age restrictions that certain service providers impose (consider Facebook or Twitter's current minimum age of 13, for example, a consequence of COPPA), are likely to have a negative impact on children's rights to participate in online public spaces, for instance for political (especially politically-contentious)

purposes. Also risky for children are the digital traces that online expression and participation leaves, especially since these tend to be automatically kept by the companies that provide platforms for social networking and their records can, under certain conditions, be demanded by states.

c) Right to privacy (Article 16 UNCRC)

The wording of Article 16 UNCRC is similar to, and arguably builds upon, that contained in Article 12 of the 1948 United Nations Universal Declaration of Human Rights (UNDHR). Article 16 provides that children have a right to protection from interference with their privacy, family, home and correspondence, and from libel or slander. It can be argued that the child's right to privacy in the digital environment has various dimensions. The OECD (2011) highlights the importance of protecting children's privacy online as children constitute a particularly vulnerable group of online users, lacking awareness and capacity to foresee potential long-term privacy consequences of, for instance, the disclosure of their personal information online. Yet, the right to privacy is also an important participatory right, particularly in the case of older children, insofar as it is part and parcel of individual autonomy, a necessary precondition of participation. The participatory function of the right to privacy is not something that is often alluded to in legal and policy documents. In the digital environment, especially, privacy is often reduced to data protection. But while data protection is certainly closely related to one's privacy, privacy itself is a much broader and more complex concept.

Children generally consider themselves as possessing a right to privacy when it comes to their digital life, and they employ a range of everyday tactics to protect their online privacy most notably from parents, teachers and peers (i.e. social privacy), rather than from State (e.g. digital surveillance) or commercial intrusion (e.g. tracking children's personal data online and creating detailed consumer profiles for behavioural advertising purposes) (Ofcom 2008). The EU's Fundamental Rights Agency's 'Handbook on European law relating to the rights of the child' (2015) observes that:

"Under international law, the right to data protection is part of the child's right to privacy contained in Article 16 of the CRC. This article provides that a child shall not be subject to arbitrary or unlawful interference with his or her privacy, family, home or correspondence, nor to unlawful attacks on his or her honour and reputation. This right must be *respected by everybody, including the child's legal representative.*" (p. 193; emphasis added)

In certain circumstances, it may conceptually be difficult to reconcile the child's right to privacy with the legitimate parental, societal and governmental interest in protecting children from harm, particularly when it comes to children's participation in the digital environment. The legitimate objective of shielding children from the potential risks associated with certain online activities must be balanced against ensuring that the child's right to privacy as well as other rights such as the rights to freedom of expression and association are not disregarded. For instance, it has been argued that the fact that the EU General Data Protection Regulation (European Union 2016) requires parents to consent with the collection and processing of personal data of children up to 16 years of age (depending on the age chosen in the Member State in question; *supra*) may actually "restrict teen access to information, social interaction, and participation" (Montgomery and Chester

2015). But the feasibility of privacy protections based on parental or even child consent is looking increasingly doubtful as data collection and analysis becomes increasingly automated, reliant on algorithmic calculations with unknown biases and largely-unaccountable processes (Chaudron et al. 2017, Lupton & Williamson 2017).

Relying on parents to protect their children's privacy is problematic, also, insofar as in the digital environment, it seems many parents disregard their children's privacy, for instance by sharing pictures or clips of them, from ultrasound pictures and birth announcements to photographs of day-to-day events in parents' and children's lives (Steinberg 2017). This practice, also referred to as 'sharenting', has been argued to be a practice of self-representation by and of parents and their parenting rather than, simply, parents' supposedly unthinking exposure of their children (Blum-Ross and Livingstone 2017). However, even if that is the case, they are making aspects of their children's lives public, (most) often without the consent of the child, while according to article 16 UNCRC, they should not 'arbitrarily' or 'unlawfully' interfere with their child's (right to) privacy. This leads to a conflict of rights, i.e. the child's privacy versus the parent's right to freedom of expression (Steinberg 2017). In considering this dilemma, parents should take the child's best interests into consideration, and consult the child about what is shared about them, in accordance with their age and maturity. Other conflicts arise when children have been removed from the parental home for their own protection, only for ICTs to enable their reconnection without the guidance or even against the sanction of the authorities (Aroldi & Vittadini 2017).

Considering the different dimensions of the child's right to privacy, a purely protectionist approach to privacy should be avoided. Privacy is a fundamental component of participation and accordingly, children should be given a voice in the policy-making process and their perceptions of privacy should be duly taken into account.

d) Mass media, the right to information and protection from harmful content (Article 17 UNCRC)

Article 17 UNCRC recognises "the important function performed by the mass media" and encourages State parties to "ensure that the child has access to information and material from a diversity of national and international sources." State parties are also expected to encourage the mass media to broadcast information and material of social and cultural benefit to children and to formulate guidelines to shield children from "information and material injurious to their well-being", bearing in mind both the child's right to freedom of expression and the responsibilities of parents in relation to the upbringing of their children.

Article 17 UNCRC is broad and, as a result, perhaps somewhat vague, referring, for example, to "the important function performed by the mass media" but offering no elaboration (Wheatley Sacino 2011). It also refers to certain culture-dependent concepts such as "spiritual and moral well-being" and "material injurious" to children's well-being, which are left open to the interpretation of State parties. While occasionally (mis)conceived as referring only to 'mass media' in the sense of 'traditional' or 'legacy' media, this notion should be conceived broadly, including online media (Council of Europe 2002).

The right to information embodied in Article 17 is indeed particularly important in the context of the digital environment. The internet is an information gateway, offering users access to a wealth of

information on an infinite number of topics. As such, access to information is a prerequisite for the realisation of many of the other rights contained in the UNCRC. Yet significantly, Detrick (1999) observes that provisions equivalent to Article 17 “cannot be found in the major universal and regional general conventions on human rights” – in this sense, they appear to be distinctively associated with children’s rights as they grow to their full potential (LaRue 2014). However, whereas general human rights documents do not yet recognise access to the internet as a human right per se (LaRue 2011), the significance thereof is increasingly emphasised in various policy documents and case-law. La Rue, in his capacity as UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression (2011), found that states do have “a positive obligation to promote or facilitate the right to freedom of expression and the means necessary to exercise this right, which includes the internet”. In its Strategy on Internet Governance, the Council of Europe (2016c) confirmed that:

“Individuals rely on the Internet for their everyday activities and more and more people have access to online services. For many, including children and young people, it is their primary source of information and means of expression. The Internet is therefore an invaluable space for the exercise of fundamental rights such as freedom of expression and information.”

The European Court of Human Rights has held, on several occasions, that “in the light of its accessibility and its capacity to store and communicate vast amounts of information, the Internet plays an important role in enhancing the public’s access to news and facilitating the dissemination of information in general” (Lievens 2017; see European Court of Human Rights, 2 February 2016, *MTE v Hungary* App no 22947/13). In any case, both children and other stakeholders increasingly appear to assume such a right. Recent participatory research related to digital media has shown that children effectively consider access to digital media a fundamental right (Third et al. 2014).

At the same time, Article 17 poses a series of challenges in the digital environment. A first challenge is to establish an equilibrium between children’s right to access information (i.e., participation), on the one hand, and the legitimate interest in safeguarding children from accessing potentially harmful material (i.e., protection), on the other. Restrictions on the publication or distribution of potentially harmful media content are included in most countries’ criminal law (e.g. prohibition on distribution of material that is considered contrary to public decency), as well as in supranational and national media and communications laws. For instance, specific provisions that aim to protect children in traditional television broadcasting, as well as in on-demand services, have been included in the EU Audiovisual Media Services Directive. Such restrictions must be proportionate and not unduly restrict children’s participation rights. Furthermore, in certain instances, a child’s right to access information may run counter to the norms of their parents or wider society – consider, for example, children’s need for and right to information about sexual identity, sexual health or sexual expression (Albury 2017, Livingstone & Mason 2015). In such situations, Article 17 and Article 16 appear to be closely interlinked and should be taken seriously.

Another challenge concerns provision of information – children must be provided with age-appropriate (and linguistically-appropriate) information on their rights. This includes information about their rights in digital environments, as children themselves call for (Coleman et al 2017). In respect of Article 17 UNCRC, the UN Committee on the Rights of the Child (CRC/C/GC/12 2009) has stated that “Children need access to information in formats appropriate to their age and capacities on all issues of concern to them. This applies to information, for example, relating to

their rights, any proceedings affecting them, national legislation, regulations and policies, local services, and appeals and complaints procedures". High quality and unbiased information of all kinds are being increasingly sought by children online and should be both provided and made readily 'discoverable' by those of all ages and in different languages. Particularly important is information about health, including mental and sexual health, sexuality and identity (CRC/C/GC/20 2016a), civil rights and community resources. For example, Global Kids Online found that around a fifth of 12- to 14-year-olds and 43% of 15- to 17-year-olds in South Africa looked for health information online at least every week (Byrne et al 2016). Moreover, States' support for children's provision in the digital environment should take into account the diverse sources of content produced by both the public and private sectors that are likely to be consumed by children and seek to provide the appropriate incentives, investment opportunities, standards and technical guidance for the production of material of social and cultural benefit to the child.

e) Right to education and literacy (Article 28 and 29)

There is a broad consensus that the digital environment in general, and the internet in particular, provides enormous benefits in terms of education, on the one hand, and that education and literacy initiatives function as crucial means to empower children in the digital environment, on the other hand. This dual perspective is reflected in many international policy documents, such as the OECD Recommendation on The Protection of Children Online (2011) and the Council of Europe Guide to Human Rights for Internet Users:

"You have the right to education, including access to knowledge. This means:

1. "You should have online access to education and to cultural, scientific, scholarly and other content in official languages. Conditions might apply to such access in order to remunerate rights' holders for their work. You should also be able to freely access publicly funded research and cultural works in the public domain on the Internet, where available;
2. "As part of Internet and media literacy you should have access to digital education and knowledge in order to exercise your rights and freedoms on the Internet. This includes skills to understand, use, and work with a broad range of Internet tools. This should enable you to critically analyse the accuracy and trustworthiness of content, applications and services that you access or wish to access."

The right to education (Article 28 UNCRC) concerns, most importantly, the provision of educational curricular, library and informational resources, which in the digital environment can be provided readily accessible and searchable to all with internet access. Second, this right encompasses the competence and literacies required to make the optimal use of such educational and information resources, building on the long history of teaching print and other literacies. Media literacy has both a protective and a participatory function by providing children and young people with the skills and abilities to take steps to manage their online lives. Media literacy policies and initiatives should be framed against the backdrop of human rights, with 'media and information literacy' (Frau-Meigs and Hibberd 2016) interwoven with the right to freedom of expression and information (O'Neill and Barnes 2008). A large body of evidence and evaluation has documented the many ways in which, at present, this is not occurring, with digital literacy limited to online safety or taught inappropriately by ICT teachers, and with e-learning policies overly focused on the provision of hardware to the neglect of digital curricula, resources, and teacher training (Selwyn 2014, Frau-Meigs et al 2017). Moreover, given the pace and complexity of the evolution of ICT, it is crucial that digital literacy

programmes and initiatives are periodically assessed and reviewed in order to ensure their continued relevance and currency. In only a handful of countries (such as France) are both students and their teachers required to meet national standards of critical and function media literacy in relation to ICTs (Cappello 2016).

Further, Article 29 UNCRC stipulates that one of the goals of education is: “(b) The development of respect for human rights and fundamental freedoms, and for the principles enshrined in the Charter of the United Nations” (CRC/GC/2001/1). The CoE Guide to Human Rights for Internet Users also stresses the role of education and literacy in relation to the exercise of rights and freedoms on the internet, for it is only through access to digital education and knowledge that internet users – including, indeed especially, children - are empowered to understand and exercise their rights and freedoms online. Children cannot exercise or realise rights about which they are unaware, therefore, they must first be made aware of the human rights to which they are entitled – and of the fact that these rights apply online as well as offline (UN Human Rights Council 2016).

f) Protection from exploitation (Articles 19, 32, 33, 34, 35 and 36)

A number of articles of the UNCRC aim to protect children from various types of violence, abuse or exploitation – Article 19 (Protection from all forms of violence); Article 32 (Child labour/economic exploitation); Article 33 (Drug abuse); Article 34 (Sexual exploitation); Article 35 (Abduction, sale and trafficking); and Article 36 (Other forms of exploitation). In relation to sexual exploitation, the Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography is also of relevance.

Article 34 UNCRC requires States Parties to “take all appropriate national, bilateral and multilateral measures to prevent” the sexual exploitation and abuse of children, including “the exploitative use of children in pornographic performances and materials.” It has been acknowledged, for instance by the UN Special Rapporteur on the sale of children, child prostitution and child pornography (De Boer-Buquicchio 2014) as well as the CoE Lanzarote Committee (which supervises the implementation of the CoE Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse or ‘Lanzarote Convention’), that the fact that children are increasingly using information and communication technologies to communicate and form relationships may, in some cases, bring them into contact with sexual offenders, as the internet increases the opportunities to groom children for sexual purposes. In addition, new threats or forms of abuse have emerged, that are facilitated by digital technologies, such as the live streaming of sexual abuse of children (De Boer-Buquicchio 2014).

When it comes to the prevention of sexual exploitation of children and young people, the focus is predominantly on ‘protection’ – i.e., the State must *protect* children and young people by adopting or strengthening, implementing and disseminating “laws, administrative measures, social policies and programmes to prevent the offences referred to in the present Protocol” (see Article 9(1) of the Optional Protocol to the UNCRC on the sale of children, child prostitution and child pornography). However, the Optional Protocol also provides (in Article 9(2)), that:

“States Parties shall promote awareness in the public at large, including children, *through information by all appropriate means*, education and training, about the preventive measures and harmful effects of the offences referred to in the present Protocol. In fulfilling their obligations under

this article, States Parties shall encourage the *participation of the community and, in particular, children and child victims, in such information and education and training programmes, including at the international level.*" [Emphasis added]

In 2014, the UN Special Rapporteur on the sale of children, child prostitution and child pornography produced a report containing a thematic study on the issue of information and communication technologies and the sale and sexual exploitation of children, and including a section entitled "Empowering Children" in which the *provision* of information and the opportunity to *participate* (actively and meaningfully) in the policymaking process in this area are recognised as important within an overall focus on protection (De Boer-Buquicchio, 2014).

In the context of the media, the UN General Assembly's 2002 Resolution on 'A World Fit for Children' already emphasised the importance of "mass media information campaigns" in the prevention and discouragement of alcohol, tobacco and drug use, as well as the role of the mass media in campaigns against sexual exploitation and trafficking of children (UN General Assembly 2002). The General Assembly clearly posits the view that the mass media have a pivotal role to play in terms of educating and informing the general public about risk issues. The 2016 report of the Office of the Special Representative of the Secretary-General on Violence against Children also indicated that the Internet, social media platforms and mobile networks play a significant role in awareness raising campaigns on violence prevention. Thus, states could encourage the media and platform providers - particularly those media which specifically provide content and/or services to children and young people - to disseminate age - and format-appropriate information to children and young people on risk issues such as online sexual exploitation or other types of violence.

The importance of educational approaches to shielding children and young people from the risk of sexual exploitation (both online and offline) is also emphasised. Part of this educational process involves teaching children how to avoid placing themselves at increased risk of becoming victims of sexual exploitation, as well as how to recognise such behaviour and manage their response. In the online context, children must be educated in, for example, the importance of non-disclosure when it comes to posting personal information online, as well as the need to exercise extreme caution when befriending people online. The construction of appropriate, age- specific education programmes and information campaigns requires concerted multi-disciplinary efforts.

Such programmes and awareness raising campaigns have also been judged to be appropriate means to address (cyber)bullying, together with school interventions and carefully considered public policies. The UN Committee on the Rights of the Child clarified, in its 2011 General Comment on the right of the child to freedom from all forms of violence, that mental violence includes "psychological bullying and hazing by adults or other children, including via information and communication technologies (ICTs) such as mobile phones and the Internet (known as "cyberbullying")". According to the Special Representative of the Secretary-General on Violence against Children (2016) "bullying and cyberbullying compromise children's rights to freedom from violence, to protection from discrimination, to an inclusive and relevant education and the highest attainable standard of health, to the right to be heard and have their best interests regarded as a primary consideration in all decisions affecting their lives" and needs, as such, to be tackled under target 16.2 of the UN 2030 Sustainable Development Agenda (which aims to end abuse, exploitation, trafficking and all forms of violence against and torture of children).

Finally, although Article 32 is generally interpreted as the child's right to protection against child labour (Swepston 2012), economic exploitation in relation to digital technologies is arguably a broader notion. The OECD in its 2011 Recommendation on the Protection of Children Online

recognised that children face significant consumer risks when surfing online, related to *inter alia* embedded ads, privacy-invasive practices, age-inappropriate content, as well as the exploitation of their incredulity and inexperience resulting in economic risks such as overspending or online fraudulent transactions. Similarly, the UN Committee on the Rights of the Child (CRC/C/GC/13 2011) stressed that children, as users of information technology and recipients of information, may be exposed to:

“(i) actually or potentially harmful advertisements, spam, sponsorship, personal information and content which is aggressive, violent, hateful, biased, racist, pornographic, unwelcome and/or misleading.

(iii) as actors they may become involved in hacking, gambling or financial scams”.

In the context of commercial communication, the UN Committee on the Rights of the Child (CRC/C/GC/16 2013b) also highlighted the important role of the state in providing adequate incentives for the private sector to adopt fair advertising practices:

“States should ensure that marketing and advertising do not have adverse impacts on children's rights by adopting appropriate regulation and encouraging business enterprises to adhere to codes of conduct and use clear and accurate product labelling and information that allow parents and children to make informed consumer decisions.”

g) Right to engage in play and recreational activities (Article 31)

Article 31 recognises the importance of play and recreation in the life of every child, particularly because of its positive impact on the social, cognitive and personal development of the child (CRC/C/GC/17 2013c). David (2006) explains that, whereas the right to play refers to unstructured informal activities of children uncontrolled by adults, recreational activities imply a more organised and formal form (e.g. sports, performing and creative arts). In the context of digital technologies, the UN Committee on the Rights of the Child (CRC/C/GC/17 2013c) highlighted that:

“Children in all regions of the world are spending increasing periods of time engaged in play, recreational, cultural and artistic activities, both as consumers and creators, via various digital platforms and media, including watching television, messaging, social networking, gaming, texting, listening to and creating music, watching and making videos and films, creating new art forms, posting images.”

In this regard, the Committee (CRC/C/GC/17 2013c) encourages States to develop policies and take the necessary measures to safeguard the opportunities of the digital environment for all children, stressing the importance of (equal) access to the internet and social media. In addition, an important consideration which was put forward during the Committee's Day of General Discussion in 2014 concerns the increased commercialisation of play, which pressures parents into buying toys and games for children and children being targeted by toy and game manufacturers with commercial messages embedded into their online gaming experiences (e.g. in-game advertising, advergames and interactive, connected toys), often without their understanding or consent (Lupiáñez-Villanueva et al. 2016).

3. Effective remedies, reporting and review

A true and effective exercise of children's rights requires that remedies are available in case of a violation of these rights (CRC/GC/2003/5 2003, Council of Europe 2010). The UN Committee on the Rights of the Child (CRC/GC/2003/5 2003) has emphasised that States need to give particular attention to ensuring that effective, child-sensitive procedures are available to children and their representatives, including provision of child-friendly information, advice, advocacy, including support for self-advocacy, and access to independent complaints procedures and to the courts with necessary legal and other assistance. When children's rights appear to be violated in the digital environment, recourse to remedies must be provided. In practice, bodies or organisations such as data protection authorities, children's rights commissioners or ombudspersons can play an important role in ensuring respect for children's rights in the digital environment.

Yet, in the digital environment, remedies cannot only be provided by States, but also by internet service or content providers (Council of Europe 2014). Businesses must establish or participate in effective operational-level grievance mechanisms for individuals and communities who may be adversely impacted, as indicated in the Guiding principles on business and human rights (UN Office of the High Commissioner for Human Rights 2011). In the digital environment, mechanisms provided by the actors that actually have control over technical features or content that is hosted on their platforms, might be especially helpful and allow for quick redress. However, such mechanisms must be legitimate, accessible, predictable, equitable, rights-compatible, transparent, based on dialogue and engagement, and a source of continuous learning (UN Office of the High Commissioner for Human Rights 2011). This means, for instance, that easily accessible and child-friendly information on how to report and complain about interferences with rights and how to seek redress must be available (Council of Europe 2014), that reports must actually be addressed and that children must be provided with feedback on follow-up actions.

Article 44 UNCRC places an obligation on State parties to undertake and submit periodic reports to the UN Committee on the Rights of the Child. Specifically, State parties are requested to furnish the Committee with information "on the measures they have adopted which give effect to the rights" enshrined in the Convention and "on the progress made on the enjoyment of those rights". This Article highlights the importance of periodic review and oversight and is easily transferable to the digital environment. State parties should in their reports acknowledge the ways in which the digital environment impacts on children's rights and well-being and should provide information on the realisation of the full array of children's rights in the digital environment. It appears that, although sporadically, at least some States do report to the Committee on measures they have taken in the digital space. For example, Ireland (2013) - under the heading 'Access to information from a diversity of sources and protection from material harmful to children's well-being' (i.e., Article 17) - included a section 'Internet Safety'. For its part, the Committee has also - in its concluding observations - made recommendations to States in this area. For example, in its observations (CRC/C/GBR/CO/5 United Kingdom 2016b) on the most recent report submitted by the United Kingdom, the Committee on the Rights of the Child recommended that the UK:

"In the light of the recommendations resulting from the day of general discussion on digital media and children's rights, train children, teachers and families on the safe use of information and communication technologies, raise awareness among children on the severe effects that online bullying can have on their peers, and increase the involvement of social media outlets in the efforts to combat cyber-bullying."

It does seem that the reporting mechanism could be used more fruitfully in relation to children's rights and digital technologies. It has been argued that the adoption of A General Comment on Children's Rights and Digital Media structured according to the requirement on States to report on child rights according to the Committee's reporting guidelines would be a valuable tool to ensure States address the issues raised by the digital environment (Livingstone, Lansdown and Third 2017).

Responsibilities of States, parents and industry for children's rights in the digital environment

Throughout the UNCRC references are made to the responsibilities of various actors to realise children's rights. Mostly States are addressed but also parents are identified as relevant actors. Article 5 UNCRC refers to the responsibilities, rights and duties of parents (or other persons legally responsible for the child), to offer, in a manner consistent with the evolving capacities of the child, appropriate direction and guidance to the child when exercising his or her rights. In the digital environment, this provision means that parents have a responsibility to (undertake efforts to) support their children in their use of digital media and devices. Parents have been relied upon to a great extent to ensure that their children are behaving responsibly and safely online. Yet, parents often feel insecure due to the complexity of digital technology (Livingstone et al. 2017), and are challenged by rapid take-up of new apps or ever-more 'private' devices such as smart phones (Lievens 2017). Recent research into parental mediation strategies has found that, whereas before often parents opted for restrictive approaches, as parents themselves become more digitally experienced, more and more parents are "us[ing] their skills to support their children's emerging digital skills and interests in ways that are responsive to children's needs and build safety considerations into an overall enabling strategy" (Livingstone et al 2017: 101).

According to Article 18, para. 2 UNCRC, States must "render appropriate assistance to parents and legal guardians in the performance of their child-rearing responsibilities". An example of such 'assistance' in the digital environment could be an increased provision of adequate information by States to parents about children's use of digital technologies and associated risks and opportunities and of media literacy programmes and policies (Hodgkin and Newell 2002, Lievens 2016, Livingstone et al. 2017). UNESCO's Global Alliance for Partnerships on Media and Information Literacy provides a framework for international cooperation to ensure that all citizens have access to media and information competencies. In 2014, the UN Committee on the Rights of the Child confirmed the duty of States "to provide adequate training and support to parents and other caregivers [...], to enhance their technical skills, inform them about the risks and potential harm, learn about how children use technology and be able to support children in using digital media and ICTs in a responsible and safe manner". Information portals specifically tailored to parents with (evidence-based) advice, tips and tricks, and tools to start conversations with children about certain phenomena, such as sexting, could provide such support. An example is the portal "Medianest" (www.medianest.be), an information and knowledge hub for parents of children of different ages, developed by the Flemish Knowledge Centre for Media Literacy, which is funded by the Flemish government.

Furthermore, as access to and use of digital technologies becomes ever more reliant on private sector companies (Global Commission on Internet Governance 2016), their responsibility to enhance and protect children's rights is ever-increasing. The UN Committee on the Rights of the Child's General Comment on State obligations regarding the impact of the business sector on children's rights (2013b) points out that:

"The Committee recognizes that duties and responsibilities to respect the rights of children extend in practice beyond the State and State-controlled services and institutions and apply to private actors and business enterprises. Therefore, all businesses must meet their responsibilities regarding children's rights and States must ensure they do so."

The CoE Committee of Ministers' Recommendation on human rights and business (2016a) recently observed that:

"Member States should require that business enterprises respect the rights of children when operating within their territorial jurisdiction and, as appropriate, throughout their operations abroad when domiciled in their jurisdiction".

In 2013, the UN Global Compact, UNICEF and Save the Children drafted the *Children's rights and business principles* (UNICEF et al. 2012). According to these principles "respecting and supporting children's rights requires business to both prevent harm and actively safeguard children's interests" (UNICEF 2013). Businesses are urged to ensure the safety of products and services and to support children's rights through them. This includes, for instance, "[r]estricting access to products and services that are not suitable for children or that may cause them harm, while ensuring that all such actions align with international standards, including non-discrimination, freedom of expression and access to information" (UNICEF 2013). Businesses are also recommended to respect and support children's rights throughout their marketing and advertising practices, for instance by raising awareness of children's rights and promoting positive self-esteem and a healthy lifestyle through their own communication and marketing channels. Moreover, companies are encouraged to implement child-rights due diligence in their activities (CRC/C/GC/16 2013b). Recently, UNICEF, working with the ITU, developed a Business Child Online Safety Assessment tool (UNICEF 2016), which provides concrete guidance to businesses for such assessments. Indeed, including the awareness and realisation of children's rights in the digital context in businesses' CSR strategies is not only beneficial for society, but is also "valuable for businesses in supporting the emergence of knowledgeable and responsible future users and developing and maintaining trust towards their services and brands" (Ságvári and Máder 2013). The incentive for ICT companies in developing their CSR strategy lies in the recognition that children are a target audience worth investing in, to offset the fact that incorporating protection and empowerment mechanisms into services incurs additional cost (European Commission 2012). For companies active in the digital technologies sector this would entail that a mutually beneficial CSR strategy should include a conscious and substantial investment of resources (financial, personnel, etc.) in putting the rights laid down in the UNCRC into practice (Lievens 2016).

Conclusion: addressing the full range of – sometimes conflicting – children's rights in the digital environment

Almost every right included in the UNCRC has an increasingly important digital facet. As children "move seamlessly through their offline and online digital environments, increasingly using ICTs for

information, education, communication and entertainment” (Byrne et al. 2016), all of their rights should be regarded as being inherently vital in the digital context. Up until now, however, not all rights have received the same level of attention. Legal and policy discourse in the area of children and digital media has predominantly focused on protection (Lievens 2017). Yet, rights of participation should also feature strongly – the right to be heard, the right to freedom of expression, and the right of access to information all come into play. Children play a range of social, community and civic roles at all ages, and increasingly through adolescence as they take on more active citizenship roles. These should be supported, valued and developed online and through the relation between online and offline spheres of engagement, recognising their rights according to their ‘evolving capacities’. Moreover, children must be provided with avenues through which to make known their views and experiences of exploitation and other risks issues on the internet, and these views and experiences should inform and influence resulting policies. In addition, children must be supported and empowered through the provision of sufficient and appropriate mechanisms through which to express concerns/report incidences (anonymously, if required) and through the provision of age- and format-appropriate information, educational resources and opportunities for play and leisure. Specific categories of children, such as those belonging to minorities or with disabilities (Alper & Goggin 2017), should equally be enabled to benefit from all categories of rights.

The various rights that children should be able to exercise are very much interlinked, as are the broader categories of protection, participation and provision rights. In this context, it is important to emphasise the protective function of participation – i.e., it is only through participation that children and young people can be truly empowered, supported and resilient in the digital environment (McLaughlin 2013). In other words, in order to protect children and young people, they must be actively and meaningfully involved in the formulation, implementation and review of policies directed at such protection. At times, rights may conflict with each other. Children’s right to freedom of expression may, for instance, sometimes necessarily be restricted, but in other instances restrictions imposed on their use of digital media in schools, communities and other public or private locations will be excessive. Protective policies, such as those require age or identity verification to gain access to certain online services or content, require consideration for children’s right to privacy and children’s right to freedom of expression and information. Moreover, the exercise of one’s human rights is not simply an individual endeavour – rather, it is a human endeavour, dependent on mutual respect for the rights of each other. For example, not only do individuals have a responsibility when it comes to protecting their own right to privacy, but also when it comes to protecting the privacy rights of others, for instance by respectful use of the data of others. Related arguments can be made regarding intellectual property, copyright or free speech.

Finally, given the fast pace at which the digital environment evolves, with children often the early adopters and primary consumers of content in ways unrecognised by adults, efforts should be grounded in an updated evidence base. Government approaches should involve multiple stakeholders, including industry, civil society and the voices of children and parents, and these should be sustained over time and independently evaluated to ensure their effectiveness.

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