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One in Three: Internet Governance and Children's Rights

Sonia Livingstone, John Carr and Jasmina Byrne



ONE IN THREE: INTERNET GOVERNANCE AND CHILDREN'S RIGHTS

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ABOUT THE GLOBAL COMMISSION ON INTERNET GOVERNANCE

The Global Commission on Internet Governance was established in January 2014 to articulate and advance a strategic vision for the future of Internet governance. The two-year project conducts and supports independent research on Internet-related dimensions of global public policy, culminating in an official commission report that will articulate concrete policy recommendations for the future of Internet governance. These recommendations will address concerns about the stability, interoperability, security and resilience of the Internet ecosystem.

Launched by two independent global think tanks, the Centre for International Governance Innovation (CIGI) and Chatham House, the Global Commission on Internet Governance will help educate the wider public on the most effective ways to promote Internet access, while simultaneously championing the principles of freedom of expression and the free flow of ideas over the Internet.

The Global Commission on Internet Governance will focus on four key themes:

- enhancing governance legitimacy — including regulatory approaches and standards;
- stimulating economic innovation and growth — including critical Internet resources, infrastructure and competition policy;
- ensuring human rights online — including establishing the principle of technological neutrality for human rights, privacy and free expression; and
- avoiding systemic risk — including establishing norms regarding state conduct, cybercrime cooperation and non-proliferation, confidence-building measures and disarmament issues.

The goal of the Global Commission on Internet Governance is two-fold. First, it will encourage globally inclusive public discussions on the future of Internet governance. Second, through its comprehensive policy-oriented report, and the subsequent promotion of this final report, the Global Commission on Internet Governance will communicate its findings with senior stakeholders at key Internet governance events.

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ACRONYMS

CIGI	Centre for International Governance Innovation
CRIN	Child Rights International Network
ECPAT	End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes
FOSI	Family Online Safety Institute
GSMA	GSM Association
ICTs	information and communication technologies
IGF	Internet Governance Forum
ITU	International Telecommunications Union
OECD	Organisation for Economic Co-operation and Development
Ofcom	Office of Communications
UDHR	Universal Declaration of Human Rights
UNCRC	UN Convention on the Rights of the Child
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WSIS	World Summit on the Information Society

EXECUTIVE SUMMARY

Rights that people have offline must also be protected online. (NETmundial 2014)

An estimated one in three of all Internet users in the world today is below the age of 18.¹

Children below the age of 18 possess the full range of human rights enjoyed by adults but, as legal minors undergoing crucial processes of human development, they cannot be treated in the same way as adults. States parties and others have unique obligations to those under the age of 18. Accepting the premise of the international NETmundial initiative on Internet governance² means that the full range of children's rights under international law and within national jurisdictions must be respected online as well as offline.

Over a decade ago, the 2003 phase of the World Summit on the Information Society (WSIS 2003) process culminated in the adoption of the Geneva Declaration of Principles and Plan of Action, in which the position of children was expressly recognized:

We are committed to realizing our common vision of the Information Society for ourselves and for future generations. We recognize that young people are the future workforce and leading creators and earliest adopters of ICTs [information and telecommunications technologies]. They must therefore be empowered as learners, developers, contributors, entrepreneurs and decision-makers. We must focus especially on young people who have not yet been able to benefit fully from the opportunities provided by ICTs. We are also committed to ensuring that the development of ICT applications and operation of services respects the rights of children as well as their protection and well-being.

Yet, over the past decade or so, the complex tapestry of organizations that now constitute Internet governance has barely recognized the distinctive rights and needs of children as a substantial group of Internet users.

For 2015, the Internet Governance Forum (IGF) chose as its theme "policy options for connecting the next billion." An estimated 300 million of that number will be children, and most of them will live in developing nations. This represents a significant responsibility for many key actors, and for global Internet governance. Drawing on the universal child rights framework enshrined in the United Nations Convention on the Rights of the Child (UNCRC) (UN 1989), it is recommended that recognition of and provision for the "one in three" Internet users who are aged under 18 years should be embedded in the principles and practices of every organization concerned with policies intended to shape the wider operation of the Internet.

Following a statement of the aims and approach, this paper argues that Internet governance bodies give little consideration to children's rights, despite growing calls from international child rights organizations to address their rights in the digital age. Typically, when children are acknowledged it is in the context of child protection while their rights to provision and participation are overlooked. This paper specifically argues against an age-generic (or "age-blind") approach to "users," because children have specific needs and rights that are not met by governance regimes designed for "everyone." Discussions about users in general embed assumptions about their being adults.

In addition to addressing issues of child protection in the online space, policy and governance should now ensure children's rights to access and use digital media and consider how the deployment of the Internet by wider society can enhance children's rights across the board. As

¹ The authors' estimate is explained in the section "One in Three: Children are a Rising Proportion of All Internet Users."

² For the terms of reference of this influential multi-stakeholder initiative, see www.netmundial.org/terms-reference.

Internet use rises in developing countries,³ international Internet governance organizations face a key challenge in shaping, through multi-stakeholder processes, the emerging models of best practice that will underpin the development of positive norms recognized by states, parents and other relevant parties.

The paper ends with six conclusions and recommendations about how to embed recognition of children's rights in the activities and policies of international Internet governance institutions.

INTRODUCTION AND AIMS

Across truly diverse domestic, cultural and geographic contexts, many children now use the Internet as part of their everyday lives. Indeed, in developed, and increasingly also in developing, countries, many children's activities are underpinned by Internet and mobile phone access in one way or another to the point where drawing the line between offline and online is becoming close to impossible, as explained in the section "Children's Rights Extend Online As Well As Offline."

When the Internet was first developed, it was a phenomenon of developed countries, driven by developments in the United States and in the English language. Policy makers tacitly assumed that users were adults. Although Internet users have diversified in recent decades, that assumption remains largely undisturbed, especially by legislators, regulators and Internet governance organizations.

This paper was written 25 years after the launch of the World Wide Web and 25 years after the UN General Assembly adopted the UNCRC, yet there is still little recognition of children's rights by global Internet governance.

The public, policy makers and practitioners are optimistic about the potential of the Internet and other ICTs to improve children's access to learning, information, health, participation and play. However, there is also concern that Internet access increases the risks to children, resulting in calls for their protection. The pressing challenge is to understand:

- when and how the Internet contributes positively to children's well-being — providing opportunities to

benefit in diverse ways that contribute to their well-being; and⁴

- when and how the Internet is problematic in children's lives — amplifying the risk of harms that may undermine their well-being and development.

While Internet governance processes have given some recognition to young people (defined by the UN as those aged between 15 and 25 years old),⁵ they have accorded too little recognition of the rights of children (defined by the UN as those under 18 years old). Yet questions about when and how the Internet contributes to or undermines children's rights are not generally asked within Internet governance circles, for several reasons.

First, although the Internet's origins lie within the taxpayer-funded public (and military) sector, since the mid-to-late 1980s, the driving force behind its development has been the private sector, propelled by the creative anarchy of small start-ups that succeed by creating a market for new products and services or by disrupting old business models (Leiner et al. 2012).⁶ Second, because of the highly technical nature of the Internet, historically the medium was poorly understood by the public bodies that might otherwise have been expected to engage more closely with the evolution of such an important social, economic and political phenomenon.⁷ Third, the Internet's increasingly global, cross-jurisdictional nature added to the complexity of the public policy challenge, limiting the efficacy of how

4 The Organisation for Economic Co-operation and Development (OECD) (2011a, 18) defines well-being as "meeting various human needs, some of which are essential (e.g. being in good health), as well as the ability to pursue one's goals, to thrive and feel satisfied with their life." See also Rees and Main (2015).

5 For example, see Nordic Youth Forum (2012); see also the program of the IGF in 2009, when child protection matters were recognised (for example, www.un.org/webcast/igf/ondemand.asp?mediaID=ws091115-redseam1). The Youth Coalition on Internet Governance (www.ycig.org/) represents those under 30 years old (but described itself — in its most recent blog post in 2012 — as "fairly dormant").

6 Governments have regarded the arrival of the Internet as an important source of economic growth, bringing new forms of revenue and new jobs to their citizens. Legislators were loathe to regulate or legislate for fear of stifling innovation, and this, in turn, was welcomed by Internet-based businesses that wished to be free to experiment with different business models and international markets.

7 In its early years in particular, the online realm was conceived as somehow unreal (or "virtual") or as just too difficult and too fast moving to manage. One result was low awareness of the vulnerabilities of several user groups, including children — except in relation to questions of access and the digital divide (and here, the focus on "households" tended to mask the specific needs of children).

3 The language of "developed" and "developing" countries is used here, while fully acknowledging the criticisms of this language made by those who reject its binary vision and possible normative values. The alternatives — high/low income countries, or global North/South — suffer related difficulties. The paper follows the language of the UN and International Telecommunication Union (ITU) reports, from which statistics on children in the population are drawn.

states might act or intervene even if they wished to.⁸ And fourth, some issues associated with children's use of the Internet pose complex technical and policy challenges, but our understanding of these is not improved by ignoring them or consigning them to a box marked "too difficult."

Even though it is commonly realized that many users are children, this history has impeded careful consideration of the proper limits that should be observed by individuals or companies working in relation to the Internet, making it difficult to enact or even discuss the particular provisions required to address children's rights in the digital age. The exception has been efforts to prevent material depicting child abuse; however, such efforts have, unfortunately, for a host of reasons beyond the scope of this paper, occasioned such concern over censorship and threats to free speech that full recognition of the breadth of children's rights (see "Children's Rights — Legal and Normative Dimensions") has been precluded. Such circumstances have not been helped by the lack of reliable statistics on child Internet users globally.

This paper seeks to transcend past difficulties and inform future global Internet governance deliberations in addressing children's rights. This matter is urgent because around one in three Internet users is under 18 years old, using the UN definition of a child.⁹ While this paper certainly does not advocate for identical policy approaches across infancy, childhood and adolescence, it argues that the legal status of children below the age of 18 should be distinctively recognized and addressed. This is because:

- they are legal minors and so cannot enter into contracts or licenses, explicit or implicit (as often occurs on the Internet), nor are they easily able to seek redress or have redress sought against them;
- they often use online services not targeted toward them but rather to adults, or where site or service

providers are unaware of or negligent of their status;¹⁰

- they have particular educational and informational needs that are not readily met through provision for the general population;
- they can be particularly vulnerable to sexual exploitation and abuse, which includes not only violent behaviour, but also any sexual activity with children below the age of sexual consent;
- they lack sufficient Internet (and other) literacies to fully grasp the demands and norms of the online environment (where buyer beware generally holds sway over seller beware); and
- they (and their parents) generally do not understand the data collected from them or otherwise held concerning them, whether directly or indirectly (as "big data"), nor is provision made specifically to inform them or to provide redress.

The Global Commission on Internet Governance, to which this paper contributes, aims "to articulate and advance a strategic vision for the future Internet governance" (CIGI 2015). This paper asks:

- What framework for children's rights can usefully underpin governance efforts to support children's rights in the digital age?
- What roles do or could international Internet governance bodies play in relation to children's rights?
- What efforts are needed to develop international policies and practice so as to ensure that children's rights are facilitated rather than undermined by the spread of the Internet?

The paper draws on the working definition of Internet governance¹¹ developed by WSIS (2005), namely: "the development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet."

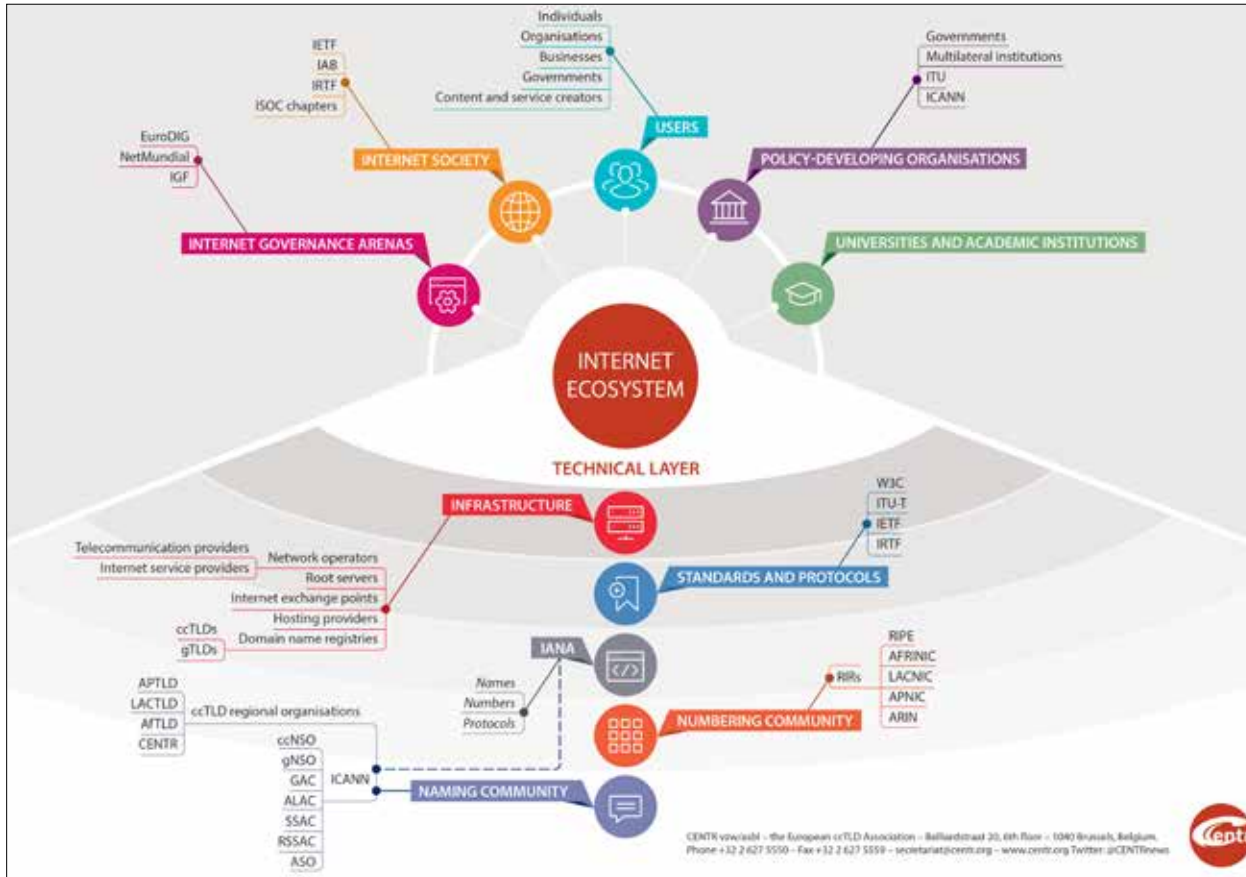
8 From a public perspective, the prospect of state intervention, even for reasons of safeguarding or protection from abuse and exploitation, was often equally unwelcome, for reasons of political distrust and concern to protect free speech emanating especially from North America. This distrust grew as the Internet spread further across the globe, reaching states far from the Global North's political traditions. A problematic consequence is a general cloud of suspicion about the legitimate role of governments in relation to the Internet.

9 This is qualified insofar as the laws in particular countries may specify a younger age. Article 1 of the UNCRC states: "The Convention defines a 'child' as a person below the age of 18, unless the laws of a particular country set the legal age for adulthood younger. The Committee on the Rights of the Child, the monitoring body for the Convention, has encouraged States to review the age of majority if it is set below 18 and to increase the level of protection for all children under 18" (United Nations Children's Fund [UNICEF] n.d.). Thus, law recognizes that those who have not reached the age of majority typically will lack either the knowledge or worldly experience to equip them to engage in a wide range of activities. It also makes provision for recognizing children's "evolving capacities."

10 Consider, for example, the top 10 sites visited by six- to 14-year-olds in the United Kingdom in 2013: 63 percent visited Google, 40 percent YouTube, 34 percent the BBC, 27 percent Facebook, 21 percent Yahoo, 17 percent Disney, 17 percent Wikipedia, 16 percent Amazon, 16 percent MSN and 15 percent eBay. Adapted from COMSCORE data in the annex to Office of Communications (Ofcom) (2013).

11 A classic definition of Internet governance is that it represents "the simplest, most direct, and inclusive label for the ongoing set of disputes and deliberations over how the Internet is coordinated, managed, and shaped to reflect policies" (Mueller 2010, 9). See also Brown and Marsden (2013), Kurbalija (2014) and Mansell (2012).

Figure 1: Internet Ecosystem



Source: Council of European National Top Level Domain Registries, reproduced with permission.

In considering the available analyses of Internet governance as they may apply to children (for example, Staksrud 2013), this paper draws on the work of the Council of Europe, End Child Prostitution, Child Pornography & Trafficking of Children for Sexual Purpose (ECPAT), EU Kids Online, the ITU, the OECD and UNICEF, among others. These organizations lead regional and global debates and/or produce national and international reports. It also refers to international statements of children’s rights in the digital age from UN treaty bodies and UN special representatives (UN Committee on the Rights of the Child, Council of Europe, the Special Rapporteur on Freedom of Expression, Special Representative of the Secretary General on Violence against Children, and others).

CHILDREN’S RIGHTS ARE LARGELY ABSENT FROM INTERNET GOVERNANCE

In the early days of the Internet, Internet governance was concentrated on the technical layer of the Internet ecosystem (see Figure 1; see also Nye 2014), the engineering required to ensure connectivity, irrespective of the content thereby communicated or the consequences for users or

wider society. Today, the bodies in this technical layer still make decisions that affect both users’ experiences and wider society. By contrast, the bodies shown in the centre of Figure 1 have few decision-making powers, yet it is these bodies (which operate substantially through multi-stakeholder dialogue) that constitute Internet governance.¹²

Although the 2003 phase of the WSIS recognized children’s rights, by the 2005 Tunis Agenda (WSIS 2005), which gave birth to the IGF, this broad and positive vision of the Internet as a mechanism for empowering and enriching the lives of children was lost,¹³ possibly because children’s rights were never institutionalized within the framework

12 Clearly, the ITU, governments and intergovernmental agencies are also part of the multi-stakeholder dialogue and these bodies also have decision-making powers, but in an important sense these are external to their role within the multi-stakeholder Internet governance frameworks where, at least nominally, everyone participates on an equal footing. Meanwhile, national governments also have powers regarding the operation of the Internet within their own jurisdictions.

13 For a recent assessment, see ITU (2014a).

and mechanisms of what was to become known as Internet governance.¹⁴

Insofar as attention was given to children's rights within Internet governance, the focus tended to be on child abuse material or illegal contact by child sex offenders — these are important but far from the only issues that concern children.¹⁵ Indeed, such a narrow lens positions children solely as vulnerable victims, neglecting their agency and rights to access, information, privacy and participation.¹⁶ The problematic consequence is that highly protectionist or restrictive policies are advocated for children in ways that may undermine their freedom of expression or that trade children's particular needs off against adult freedoms online (La Rue 2014; Livingstone 2011; Siebert 2007).

Most international guidelines, special reports and recommendations that deal with human rights, child rights and the Internet emphasize the importance of striking a balance between opportunities and risks, freedom of expression and the right to privacy, children's right to special protection measures as well as online and offline dimensions of children's experiences. They urge that enabling these benefits while also minimizing the Internet-facilitated abuse of children requires a coordinated international-level action and global policy framework. Former UN Special Rapporteur on Freedom of Expression, Frank La Rue, for example, in his final statement in 2014, criticized overly protectionist policies that focus exclusively on risks and neglect the potential of the Internet to empower and benefit children, since the Internet is "an important vehicle for children to exercise their right to freedom of expression and can serve as a tool to help children claim their other rights, including the right to education, freedom of association and full participation in social, cultural and political life. It is also essential for the evolution of an open and democratic society, which requires the engagement of all citizens, including children" (La Rue 2014, 16).

In recent years, various UN agencies and related bodies concerned with children's well-being have addressed the importance of the Internet in relation to children's

rights. Notably, in September 2014, the UN Committee on the Rights of the Child devoted a special Day of General Discussion to children's rights and the digital media in order to "develop rights-based strategies to maximize the online opportunities for children while protecting them from risks and possible harm without restricting any benefits."¹⁷

Their recommendations reinforce the imperative to re-examine each article of the UNCRC in the digital age. Not only did the committee recommend that national laws and policies dealing with children need to incorporate ICT-specific provisions while ICT-related legislation needs to assess the impact on children, but also that children's equal and safe access to the Internet should be part of the post-2015 development agenda.

Some regional bodies have also paved the way for global innovation in programs and standard setting that recognize the challenge of a free and open Internet that is also a safe space for children. For example, the Council of Europe's guide, "Human Rights for Internet Users," and the guide's "Explanatory Memorandum," calls for measures that allow content created by children online that compromises their dignity, security or privacy to be removed or deleted at the child's request, subject to the technical means to implement them.¹⁸ It further proposes legal remedies and complaint procedures for children whose right to participation has been violated. Related developments and innovations have been instituted by the European Commission's Safer Internet (now Better Internet for Kids) program, including its cross-national networks of hotlines for reporting illegal child sex abuse images, helplines for children, Internet safety centres for positive provision of educational and parenting resources, and networks of researchers and children's charities to support provision, protection and participation in relation to Internet matters.¹⁹

14 This remains a telling feature of the current landscape, especially since children's organizations are not always able to participate actively and advocate on children's behalf in these unfolding governance processes and dialogues, due to lack of sufficient awareness, expertise or resources to enable their inclusion in key decision-making and legislative/regulatory processes.

15 As, for example, the *Finding Common Ground* report written to underpin this series (CIGI 2014), and the mapping of international internet public policy issues by the Intersessional Panel of the Commission on Science and Technology for Development (2014). Notably, in the NETmundial "Multistakeholder Statement" (2014) — regarded by many as a milestone summation of current thinking on Internet governance — the words "child," "children," "youth" and "young" do not appear anywhere.

16 This blind spot is replicated in academic texts such as Mueller (2010), DeNardis (2014), Castells (2001) and Decherney and Pickard (2015).

17 See www.ohchr.org/EN/HRBodies/CRC/Pages/Discussion2014.aspx. The resulting report is at www.ohchr.org/Documents/HRBodies/CRC/Discussions/2014/DGD_report.pdf.

18 [https://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec\(2014\)6&Language=lanEnglish&Site=COE&BackColorInternet=DBDCF2&BackColorIntranet=FDC864&BackColorLogged=FDC864](https://wcd.coe.int/ViewDoc.jsp?Ref=CM/Rec(2014)6&Language=lanEnglish&Site=COE&BackColorInternet=DBDCF2&BackColorIntranet=FDC864&BackColorLogged=FDC864); <https://wcd.coe.int/ViewDoc.jsp?id=1929453>; See also Declaration of the Committee of Ministers on protecting the dignity, security and privacy of children on the Internet. Adopted by the Committee of Ministers on February 20, 2008. See [https://wcd.coe.int/ViewDoc.jsp?Ref=Decl\(20.02.2008\)&Language=lanEnglish&Ver=0001&BackColorInternet=9999CC&BackColorIntranet=FFB55&BackColorLogged=FFAC75](https://wcd.coe.int/ViewDoc.jsp?Ref=Decl(20.02.2008)&Language=lanEnglish&Ver=0001&BackColorInternet=9999CC&BackColorIntranet=FFB55&BackColorLogged=FFAC75) and the Explanatory Memorandum available at www.coe.int/web/internet-users-rights/children-and-young-people-explanatory-memo.

19 See <http://ec.europa.eu/digital-agenda/en/creating-better-internet-kids> for the program, <http://ec.europa.eu/digital-agenda/en/news/study-better-internet-kids-policies-member-states-for-an-evaluation-of-evidence-based-policy-in-europe>, and <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009DC0064&qid=1440601174526&from=EN> for an evaluation of the Safer Internet Programme.

Several international governmental and civil society organizations have their own specific principles of Internet governance, but as yet there is no agreed set of common principles that would guide all multi-stakeholder engagements. Nevertheless, the core values enshrined in documents by organizations such as the Council of Europe, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the OECD and the NETmundial initiative²⁰ converge around the following principles: human rights and shared values (freedom of expression, freedom of association, privacy, accessibility, freedom of information), openness, universality, protection from illegal activity, cultural and linguistic diversity, and innovation and creativity, as well as a multi-stakeholder cooperation process that is open, transparent, inclusive and accountable.

This paper argues that child rights are consistent with all of these principles and processes. Implementation of child rights in the digital age requires not only adherence to human rights and values, but also empowerment and participation of child users that fosters their creativity, innovation and societal engagement. It is argued below that children’s rights are everybody’s responsibility — from parents to states to the private sector — so what better place to start the dialogue on how these rights can be translated into the digital world than through Internet governance processes.

Beyond the principles at stake, our concern extends to organizational practice. For instance, the IGF is based on multi-stakeholder dialogue and consensus building. Yet discussions at the IGF commonly refer to Internet users (or society or “the population”) as if everyone is an adult. Systematic attention to children’s needs and rights has been lacking, and the views of children have not been well represented in key deliberative forums, although there has been sporadic attention to those of young people.²¹ Generally, the IGF’s activities are determined by its Multi-stakeholder Advisory Group, which lacks specific expertise in relation to children. Yet, as the next section argues, children represent a substantial and growing proportion of Internet users.

ONE IN THREE: CHILDREN ARE A RISING PROPORTION OF ALL INTERNET USERS

Globally, children comprise approximately one in three of the total population. In more developed countries, children under the age of 18 comprise approximately one-fifth of the population; in less developed countries, however, children constitute a substantially greater percentage of the total population — between one-third and one-half of the population (Table 1).²²

Table 1: Global Population Figure Estimates by Age, 2015 (in thousands)

Age	Global	More Developed	Less Developed (including least developed)	Least Developed
0–4	642,161	69,065	573,096	126,597
5–10	726,250	79,943	646,307	135,023
11–17	834,777	98,909	735,869	136,511
Total children 0–17	2,203,188	247,916	1,955,272	398,131
Total population	7,324,782	1,259,588	6,065,192	940,125
% of total	30.07	19.68	32.23	42.35

Data source: UN Department of Economic and Social Affairs, Population Division.

Note: Data represent 2015 population estimates at medium variant

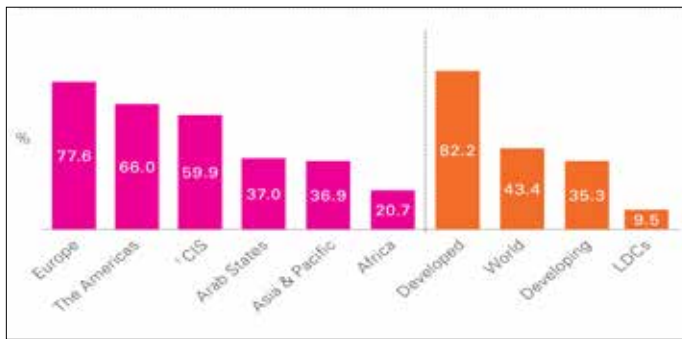
In terms of Internet use, ITU figures show that the Global North is reaching market saturation at 82.2 percent of all individuals, compared to just 35.3 percent of those in developing countries (see Figure 2). Therefore, most future growth in the online population will be concentrated in

20 See, for example, NETmundial initiative principles at www.netmundial.org/principles, UNESCO (2015) and Declaration by the Committee of Ministers on Internet governance principles available at <https://wcd.coe.int/ViewDoc.jsp?id=1835773>.

21 Only in 2009 were children discussed in a plenary session. The Youth IGF was created in 2009, and supported by the UK children’s charity Childnet to participate in meetings, but it is unclear whether this has resulted in any change in Internet governance practice. See also Nordic Youth Forum (2012).

22 Note that data is not collected and categorized consistently from developing countries. Instead, two common classification systems are used: that of most, less and least developed countries (classifications used, for example, by various UN agencies such as the UN Department of Economic and Social Affairs, UNESCO, UNICEF), and that of low-, middle- and high-income countries (as used by the World Bank). There is not necessarily alignment of countries within and between these classification systems, and indeed, some countries categorized as high income may fall within what is referred to as the “Global South.” An attempt to use regional blocks — Sub-Saharan Africa, the Middle East and North Africa, the Association of Southeast Asian Nations and so on — presents the same challenges. Data used here are presented using the categories commonly used by those producing the most accurate and recent population and socio-economic data.

Figure 2: Percentage of Individuals Using the Internet



Source: ITU World Telecommunication/ICT Indicators database, reproduced with permission.

Note: LDCs refers to "least developed countries."

the Global South, where the population outnumbers that in the Global North by a ratio of more than five to one.²³

The tipping point has already passed: two-thirds of the world's nearly three billion Internet users live in the Global South (ITU 2014b), where the proportion of children in the population is far higher than in the Global North; therefore, a sizeable and rising portion of the projected growth in Internet users will include children. Reliable data on the proportion of children included among the individuals in Figure 2 cross-nationally is not available.²⁴ However, the UN Population Division reports that children under 18 comprise one-third of the world's population, with almost 10 times as many children living in developing compared to developed countries.

ITU data on Internet usage among 15- to 24-year-olds by country reveals that in developing countries, young people online outnumber the overall online population by a factor of two or three (ITU 2013). For this reason, too, it seems fair

23 See UN Department of Economic and Social Affairs, Population Division at <http://esa.un.org/unpd/wpp/Demographic-Profiles/index.shtml>.

24 However, according to the ITU World Telecommunication/ICT Indicators database, data on Internet users younger than 15 have been collected from household surveys (for example, the ICT Household Survey in Brazil) and made available in some 28 countries. While in some countries the percentage of 0- to 15-year-olds online is less than the percentage of 25- to 74-year-olds, in others it is higher. Averaging across those 28 countries, a similar percentage of 0- to 15-year-olds and 24- to 74-year-olds are online. As already stated, the percentages of 15- to 24-year-olds online are substantially higher than that for 25- to 74-year-olds in all countries. For this reason, the authors are confident in their estimate that children comprise one in three Internet users; in countries where adults are online, children are generally online in equal measure, averaged across countries. Nonetheless, it is clearly problematic that, according to the ITU's estimates, fewer than half of those countries where data on Internet use by age is available include information on Internet use by children under 15 years old. In relation to children's rights, not only is it vital to know how many children use the Internet, but such data should be disaggregated by gender, among other factors, to identify instances of inequality or discrimination.

to assume that depending on the age of first Internet use,²⁵ they will comprise a growing proportion of the Internet-using population as more of the developing world gains Internet access.

In sum, it is not currently possible to calculate the proportion of Internet users that are children with precision. The estimate that they comprise one in three of all users is based on the following:

- Under-18s comprise one-third of the world's population. Not all of them are Internet users, of course, but the indications are that children go online at a similar rate (or, to be precise, at a lower rate for small children and a higher rate for adolescents), averaged across the age span, as adults.
- Across those developed and developing countries in which ITU data are available, the average percentage of 0- to 15-year-olds online is similar to the percentage of 25- to 74-year-olds online. While infants are unlikely to be Internet users, in developed countries even preschool children are now accessing the Internet. Further, young people aged 15 to 24 are between two and three times more likely to be online than older people, and this ratio is also higher in developing countries.
- Thus, as the Internet spreads, evidence suggests that children under 18 are as likely to be online as adults over 18. While children comprise only a fifth of the population in developed countries (and so, in the beginning of the Internet, were closer to one-fifth of all Internet users), present and future growth in the online population is primarily occurring in developing countries, where children comprise between one-third and one-half of the population.²⁶

In developed countries, most children live with one or both of their parents and attend school, so there has been a perhaps understandable, historically based tendency to regard parents and educators as responsible for guaranteeing children's needs and rights across the board. This assumption is being contested; first, because of the growing complexity of technology and the speed of change; and second, because in developing countries

25 In the United Kingdom, 11 percent of three- to four-year-olds are already Internet users (Ofcom 2013).

26 This is in part because life expectancy is lower so that "childhood" occupies a larger proportion of the life span in such countries, where those under 18 are likely to bear considerable responsibilities, yet this does not bring them commensurate rights.

many children lack parents with the time or resources to support their needs.²⁷

The emphasis is shifting toward a more holistic approach that recognizes the roles of all the different actors in the Internet value chain. However, in relation to children growing up in many developing countries, it is unlikely that the existing social, law enforcement and educational infrastructures are effectively aligned. It is within these varied contexts that children's access to and use of the Internet needs to be understood. To put it another way, since it cannot be safely assumed that child Internet users have the benefit of informed parents or adequate schooling, the way in which Internet governance organizations address the needs of Internet users worldwide must encompass those of child users.

Indeed, emerging evidence from research in developing countries suggests considerably higher estimates of risk of harm and considerably lower levels of provision and participation for children in relation to ICTs than in developed countries (Livingstone and Bulger 2013; 2014). Indeed, "going online" may take a different form and meaning in different countries, and care is required in assuming that conditions in developing countries will replicate what is known in developed countries.

For example, access and use are often "mobile first" and/or community-based (for example, via cybercafés or various workarounds to gain access) rather than home- or school-based, and connectivity and even electricity may be unstable. Socio-economic, ethnic and gender inequalities in use, along with harmful or exploitative consequences of use, are more acute and there is evidence that girls' rights are particularly infringed, as are those of minority or disadvantaged children (Barbosa 2014; Beger and Sinha 2012; Gasser et al. 2010; GSM Association (GSMA) 2013; Samuels et al. 2013; UNICEF 2014). Further, in many countries, what constitutes "the Internet" is highly commercial, with little local, public or own-language provision. Regulation may be largely lacking or highly punitive, with relatively few child-focused mediators of empowerment or protection. Many children's Internet experiences concern content and services heavily tailored for adult consumers, with easy access to largely unregulated and potentially harmful content, contact and conduct, and insufficient support from parents or teachers to guide their safe and empowered Internet use.

27 See Lippman and Wilcox (2014). In Eastern and Southern Africa, for example, 27 percent of children of lower secondary school age do not attend school, in South Asia 26 percent of children of the same age do not attend school, while in Western and Central Africa, this proportion rises to 40 percent of children. See UNICEF data at <http://data.unicef.org/education/secondary>. Further, in many developing and less/least developed countries, schools are characterized by overcrowding and by ailing or no infrastructure, and they are often poorly managed and under-resourced.

CHILDREN'S RIGHTS – LEGAL AND NORMATIVE DIMENSIONS

What do we mean by children's rights? Children's rights are set out in the UNCRC and other international and regional human rights instruments including the Universal Declaration on Human Rights (UDHR), the UN Covenant on Civil and Political Rights, European Convention for the Protection of Fundamental Rights and Freedoms, and the Council of Europe Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse.²⁸

The UNCRC is the most comprehensive human rights document regarding children, and is almost universally ratified by states parties, with the notable exception of the United States.²⁹ It guarantees all children equal civic, political, cultural, economic and social rights, including the right to access information and the right to education, and specifically emphasizes that some rights commonly thought of in relation to adults (for example, participation and assembly) also apply to children. In addition to those rights, including in human rights frameworks, the UNCRC recognizes children's unique needs, capacities and vulnerabilities. Thus, it states that children have the right to development and play; it specifies in detail their rights to protection from all forms of violence, abuse and exploitation, and it emphasizes their right to be brought up in a protective and caring family environment.

Part 1 of the UNCRC (Articles 1–41) concerns substantive rights, while Part 2 (Articles 42–54) concerns their implementation. While they should be understood as part of a holistic framework, the substantive rights are commonly divided into three "Ps":

- Rights to **provision** concern the resources necessary for children's survival and their development to their full potential.
- Rights to **protection** concern the wide array of threats to children's dignity, survival and development.
- Rights to **participation** enable children to engage with processes that affect their development and enable them to play an active part in society.

Children's rights are universal, applying equally to all children in all social, economic and cultural contexts. They are also indivisible and interrelated, with a focus on the child as a whole. Thus, there is, in principle, no hierarchy of human rights, and decisions with regard to any one right must be made in light of all the other rights

28 Available at Council of Europe (2007) and <http://conventions.coe.int/Treaty/Commun/QueVoulezVous.asp?NT=201&CM=8&DF=&CL=ENG>.

29 South Sudan was the latest country to ratify the convention in May 2015.

in the convention. Child rights advocates generally agree that the UNCRC's "greatest contribution has been in transforming the public perception of children. Whereas children previously tended to be seen as passive objects of charity, the Convention identified them as independent holders of rights. States parties are no longer just given the option to pursue policies and practices that are beneficial to children — they are required to do so as a legal obligation" (UNICEF 2014, 40).³⁰

As a normative and analytic framework with which to ensure that important dimensions of children's lives are properly addressed by policy actors, and to gain a holistic perspective on the manifold factors that affect their well-being, the UNCRC remains a remarkably resonant, even inspiring document — and a vigorous call to global action. It recognizes children as rights-holders, with full human rights and not a partial version thereof.

The convention consists of 54 articles. There are also three optional protocols, the most relevant one to this topic being the optional protocol on the sale of children, child prostitution and child pornography. Of the UNCRC's 41 articles that deal with substantive matters, around half have immediate and obvious relevance to the Internet and the digitally networked age more broadly, as set out in Box 1.

Although formulated before mass adoption of the Internet, the UNCRC applies as much in the digital age as before. It is the yardstick by which any and every action taken by states or private sector actors can be judged. Its guiding principles include: the best interests of the child (this being an overarching principle that should guide all decisions related to the child), non-discrimination, survival and development, and participation (of children in matters that affect them). The application of these principles in the context of cyberspace may require the evolution of different approaches or ways of thinking, but the values set out in the UNCRC retain their immediacy and are of undiminished importance.

The UNCRC conceives of the child as an individual rights-holder and as a member of a family and community, with parents or guardians (Article 18) having primary responsibility for their upbringing. However, the level of parental guidance will be dependent on the child's "evolving capacities" (Article 5): "The Convention

recognises that children in different environments and cultures who are faced with diverse life experiences will acquire competencies at different ages, and their acquisition of competencies will vary according to circumstances. It also allows for the fact that children's capacities can differ according to the nature of the rights to be exercised. Children, therefore, require varying degrees of protection, participation and opportunity for autonomous decision-making in different contexts and across different areas of decision-making" (Lansdown 2005, ix).

States have obligations to ensure appropriate legal and administrative measures that enable the realization of the rights of the child. Additionally, when children lack adequate parenting or guardianship, the UNCRC requires the state to provide special assistance and protection to the child. Insofar as the state devolves some responsibility for Internet governance to international bodies, this includes responsibility for child users. In the absence of this, assuming parents are available and competent in all matters regarding their children's Internet use is unrealistic, especially given the Internet's complex, cross-border nature.

Ratification of human rights treaties such as the UNCRC makes states legally bound by the provisions of such treaties. Following ratification, governments should put in place legislative and other measures that are in accordance with the treaty obligations. However, to ensure compliance with a convention as comprehensive as the UNCRC, national laws need to be reviewed and amended and their enforcement ensured, which is a complex and lengthy process. The UN Committee on the Rights of the Child, comprised of independent experts, provides recommendations to the states parties on the implementation of the UNCRC based on examination of national reports and dialogues with the states.

³⁰ This report adds that, "when the Convention on the Rights of the Child was adopted in 1989, less than a handful of independent human rights institutions for children existed in the world. Today, there are more than 200 operating in more than 70 countries, including ombudspersons, child commissioners, mediators, and child rights or human rights commissions" (UNICEF, 2014, 44). Also noteworthy is that "under article 4 of the Convention, States Parties are obligated to invest in children to the maximum extent of their available resources. As a result, increasing numbers of countries are designing budgets with children specifically in mind" (ibid., 46).

Box 1: Selected Articles of the UNCRC of Particular Relevance to the Digital Age

Provision:

- To the resources necessary for life, survival and development. (Article 6)
- To preserve his or her name, identity, nationality and family relations. (Article 8)
- Which recognizes “the important function performed by the mass media” and so encourages provision of diverse information and material of social and cultural benefit to the child (including minorities) to promote children’s well-being. (Article 17a-d)
- Of an education to facilitate the development of their full potential. (Article 28)
- Of an education that will facilitate “the development of the child’s personality, talents and mental and physical abilities to their fullest potential” and prepare them “for responsible life in a free society.” (Article 29)
- For rest, play, recreation and leisure as appropriate to their age, including the provision necessary to “promote the right of the child to participate fully in cultural and artistic life.” (Article 31)
- Of “all appropriate measures to promote physical and psychological recovery and social reintegration of a child victim of any form of neglect, exploitation, or abuse...[so as to foster] the health, self-respect and dignity of the child.” (Article 39)
- “A child belonging to such a [ethnic, religious or linguistic] minority or who is indigenous shall not be denied the right, in community with other members of his or her group, to enjoy his or her own culture,” religion and language. (Article 30)

Protection against:

- Any kind of discrimination. (Article 2)
- “Arbitrary or unlawful interference with his or her privacy, family, or correspondence, nor to unlawful attacks on his or her honour and reputation.” (Article 16)
- “Information and material injurious to the child’s well-being.” (Article 17e)
- “All forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse.” (Article 19)³¹
- All forms of sexual exploitation and sexual abuse, including “(a) The inducement or coercion of a child to engage in any unlawful sexual activity; (b) The exploitative use of children in prostitution or other unlawful sexual practices; (c) The exploitative use of children in pornographic performances and materials.” (Article 34)
- “The sale of or traffic in children for any purpose or in any form.” (Article 35)
- “All other forms of exploitation prejudicial to any aspects of the child’s welfare.” (Article 36)
- “Torture or other cruel, inhuman or degrading treatment or punishment.” (Article 37)

Participation rights:

- The right of children to be consulted in all matters affecting them. (Article 12)³²
- Freedom of expression. (Article 13)³³
- Freedom of thought. (Article 14)
- Freedom of association and peaceful assembly. (Article 15)
- Access to information. (Article 17)
- The right to participate freely in cultural life and the arts. (Article 31)

31 The second part of this Article is particularly pertinent for Internet governance institutions: “Such protective measures should, as appropriate, include effective procedures for the establishment of social programmes to provide necessary support for the child and for those who have the care of the child, as well as for other forms of prevention and for identification, reporting, referral, investigation, treatment and follow-up of instances of child maltreatment described heretofore, and, as appropriate, for judicial involvement” (UN 1989).

32 This is a qualified right, contingent on a judgment of the child’s maturity: “States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child” (ibid.).

33 Note that this right is not qualified according to the child’s maturity, although, as for adult freedom of expression, it is qualified in order to respect the rights or reputations of others, national security, public order or public health or morals.

In relation to children, this responsibility has been articulated most notably in the form of a General Comment (no. 16 on state obligations regarding the impact of the business sector on children's rights) on the UNCRC by the Committee on the Rights of the Child (2013).³⁴ These business principles have been explicitly elaborated to take into account children's situations and their vulnerabilities, as well as developing specific tools for assessing the impact and monitoring of compliance.³⁵ Since children's rights now transcend the physical realm, being also applicable online, there is an evident need for a degree of harmonization with instruments that deal with the Internet more broadly.³⁶

International Internet governance organizations have a unique opportunity to foster the multi-stakeholder dialogues that will help shape this harmonization, as examined in the next section. Without such intervention, it is likely that states will take a range of national-level actions that may threaten the global nature of the Internet and lead to widening disparities in the level of benefits that children might derive from cyberspace.

CHILDREN'S RIGHTS EXTEND ONLINE AS WELL AS OFFLINE

Not only are children going online in ever-greater numbers, but they increasingly rely on the Internet for a range of basic needs and rights — for education, information, communication, play, family relations, and so on.³⁷

34 The purpose of the General Comment is “to provide States with guidance on how they should: a. Ensure that the activities and operations of business enterprises do not adversely impact on children's rights; b. Create an enabling and supportive environment for business enterprises to respect children's rights, including across any business relationships linked to their operations, products or services and across their global operations; and c. Ensure access to effective remedy for children whose rights have been infringed by a business enterprise acting as a private party or as a State agent” (Committee on the Rights of the Child 2013, 4).

35 See UNICEF, UN Global Compact and Save the Children (2013) and UNICEF and Danish Institute for Human Rights (2013).

36 In the European Union, for example, a series of mechanisms have evolved to monitor or report on the activities of Internet-based businesses in terms of their impact on children's usage of their services. Following a call from then European Commission Vice President Neelie Kroes in December 2011, the CEOs of 28 major Internet businesses established the CEO Coalition (www.webwise.ie/news/ceo-coalition-responds-to-commissioner-neelie-kroes-2). This, in turn, was followed by a response from a group of industry players that established the ICT Coalition (www.ictcoalition.eu/), which established a self-reporting mechanism to demonstrate compliance with declared online child safety objectives. By contrast, it is very difficult to ascertain comparable, broad-ranging monitoring and reporting processes in the developing world where, arguably, because many aspects of the online social and educational infrastructure will be comparatively immature, the need is far greater.

37 See, for example, Barbosa (2014), Child Rights International Network (CRIN) (2014), Internet Safety Technical Task Force (2008), Livingstone and Bulger (2014), Livingstone, Haddon and Görzig (2012), Madden et al. (2013), Rideout, Foehr and Roberts (2010).

Amanda Third et al.'s (2014) multinational consultation with children living in 16 countries concluded that children now regard access to digital media as a fundamental right and, further, they recognize that digital media are fast becoming the means through which they exercise their rights to information, education and participation.³⁸

Thus, it is timely to translate the UNCRC into a clear set of standards and guidelines and a program of action that addresses children's rights in the digital age. These rights are broad-ranging and include positive (“freedom to”) and negative (“freedom from”) obligations on states to protect human rights. The Internet is increasingly associated with many of the major physical, sexual and psychological harms from which the UNCRC holds that children should be protected. At the same time, it has been argued that the Internet: “has become the main technology through which children with access, skills and agency exercise the information and communication rights protected under the Convention” (Gasser 2014, 118).

Recent international evidence reviews have documented the relevance of the Internet to both the risks of harm that face children and the opportunities to benefit children.³⁹ The evidence base is growing more robust and, although much of the available research has been conducted in developed countries,⁴⁰ there is also a growing body of recent research in developing countries.⁴¹

As this evidence shows, use of the Internet on a mass scale by individuals and institutions is reconfiguring the routes or pathways by and through which children engage with their worlds. Given limitations of space, six illustrations of how children's rights are exercised through and impacted by the Internet are offered (see Table 2).

38 A recent pan-European consultation with children reached a similar conclusion — see <http://paneuyouth.eu/>.

39 For recent international reports, see UNICEF Innocenti Research Centre (2012), ITU (2013) and Family Online Safety Institute (FOSI) (2011).

40 See, for example, Ainsaar and Loof (2012), Livingstone et al. (2011); Livingstone, Haddon and Görzig (2012), Livingstone and Bulger (2014), O'Neill, Staksrud and McLaughlin (2013), Jones, Mitchell and Finkelhor (2012), Rideout, Foehr and Roberts (2010), Wartella et al. (2013), OECD (2011b; 2012), Internet Safety Technical Task Force (2008) and Madden et al. (2013).

41 See, for example, Popovac and Leoschut (2012), Davidson and Martellozzo (2010), Barbosa (2014), Soldatova et al. (2014), Livingstone and Bulger (2013), Gasser, Maclay and Palfrey (2010), GSMA (2013) and van der Gaag (2010).

Table 2: Indicative Domains in Which Children’s Rights Are Reconfigured by Internet Use

Risks	Opportunities
<p>Grooming,⁴² sexual abuse and sexual exploitation including child pornography</p> <p>The Internet has greatly expanded the volume of child abuse images in circulation, arguably transforming the “market” for such images. Even fairly well-resourced specialist law enforcement units (e.g., the UK’s Child Exploitation and Online Protection Centre) acknowledge that they cannot cope with the scale of image-related offences through traditional policing methods (i.e., detection, arrest and prosecution). Technical tools may help and are now being developed. As regards grooming offences, the scale of offending and its cross-national nature is already posing unprecedented challenges to the capacity of law enforcement agencies in the developed as well as developing world.⁴³</p>	<p>Education and learning</p> <p>ICTs can transform children’s learning opportunities and experiences and their access to knowledge and resources. The ability to access relevant information and quality content can therefore have a significant positive impact on the realization of the rights of the child, especially the right to education (Frau-Meigs and Torrent 2009; UNICEF 2014). Access and affordability are connected and children in remote, poor or rural areas are less likely to benefit from the opportunities that the Internet offers. This is particularly pronounced in developing countries (or small language communities), where the uptake is growing rapidly, but still lags behind high income countries.</p>
<p>Bullying and harassment</p> <p>Wherever the Internet is used, it is quickly recognized that Internet users — including children — pose a risk of harm to other users. When children are conceived only as victims, such problems can go unnoticed, as can the vulnerabilities of the “perpetrators.” Research shows that many children are resilient to hostility, humiliation or exploitation by their peers, but some are vulnerable, resulting in mental distress, self-harm or even suicide. It also explains how these risks undermine children’s rights regarding identity, reputation, privacy and play as well as safety. Yet, as part of their development, children need to explore relationships and identity issues in their own ways. Such complexities demand subtle interventions from parents, teachers, industry providers and child welfare services (Bauman, Cross and Walker 2013; Rutgers 2014; Sabella, Patchin and Hinduja 2013).</p>	<p>Information and digital literacy</p> <p>Increasingly, children are turning to the Internet for access to knowledge and information of diverse kinds. Some information is vital to their well-being (e.g., sexual, health or safety-related), and much is beneficial in other important ways. In addition, children are increasingly creators of online content that could include texts, images, animations, blogs, applications and videos. For this they need opportunities to learn to create, code and share content. Limitations of media and information literacy, as well as limitations on information access, mean that children may lack opportunities to develop their critical, evaluative and digital literacy skills, or that they may rely on problematic or misleading information (Albury 2013; CRIN 2014; Gasser et al. 2012; Horton 2013; Wartella et al. 2015).</p>
<p>Advertising and marketing</p> <p>In the physical world, regulations and practices have developed over many years which have limited the extent to which a range of products and services can either be advertised to or purchased by children. These have yet to be satisfactorily translated into a reality in the online space. A host of emerging practices, from online marketing, “advergaming,” in-app purchases, digital and viral marketing strategies, and the growing prospects of mining “big data” (the key asset behind many Internet services), all pose risks to children in terms of commercial and peer pressures, their privacy, exposure to inappropriate products and messages, and the digital literacy and competencies of children and, importantly, also the competence (or even awareness) of their parents to protect them (Bakan 2011; Brown 2009; Nairn and Hang 2012; Wilcox et al. 2004).</p>	<p>Participation, voice and agency</p> <p>Internet and social media provide opportunities for civic engagement and self-expression among children (Collin et al. 2011). As platforms for participation in social and civic life, these can transcend traditional barriers linked to gender, ability/disability or locale. In societies where certain groups are excluded from the decision-making processes of their communities and societies, ICTs can offer an opportunity to connect with peers, engage in political processes, and underpin the agency that will allow them to make informed decisions and choices in matters that affect them (Raftree and Bachan 2013). Children engage in issues concerning them in many ways — through social networking, digital storytelling, blogging, citizen journalism and online groups or networks.⁴⁴</p>

⁴² Grooming refers to the “solicitation of children for sexual purposes” (Council of Europe 2007).

⁴³ See, for example, ECPAT (2015), Martellozzo (2011), Webster et al. (2012) and Whittle et al. (2013).

⁴⁴ See, for example, UNICEF’s u-report at www.ureport.ug/.

As these examples reveal, the risks and opportunities of Internet use are impacting both positively and negatively on children's well-being and, therefore, on their rights. How this occurs, as the evidence further documents, depends on the child, their life circumstances and the wider context, and these factors interact with the specific features of the Internet — transnational, networked, interactive, ubiquitous, persistent, mobile, heavily commercial and so forth.

Age is of crucial importance in mediating the risks and opportunities of Internet use. It is pertinent that the UNCRC insists that children's rights are addressed "according to the evolving capacity of the child" (UN 1989). Yet the Internet is largely age-blind, rarely treating children according to their age or capacity, most often not treating them as children at all. In this sense, including children in governance designed for everyone fails to address their particular rights and needs.

Further vulnerabilities also matter. Just as it is inappropriate to assume all Internet users are adults, it is equally inappropriate to assume all child users are media-savvy, socially supported and psychologically resilient. Many are, to be sure, but a significant proportion is not, with age and maturity making a huge difference in this regard: research shows that those who are vulnerable (for all kinds of reasons and in all kinds of ways) are both least likely to gain the benefits of Internet use and most likely to encounter the risk of harm.⁴⁵

Also of importance is socio-economic status, given considerable differences among children within and across countries worldwide. For many children, limitations in access preclude them from gaining the benefits of Internet use, generating new digital inequalities and forms of exclusion. On the other hand, gaining access to mobile or online technologies in the absence of adult support or regulatory infrastructure, as is the case for many children living in conditions of poverty or deprivation, can mean that the Internet poses greater risks to their safety than it affords opportunities. In the digital age, such problems can only be overcome:

- if children have sufficient and affordable access to the Internet (along with the digital literacy required to use it well) so as to fully realize their rights;
- if children are sufficiently supported and safe offline so that provision of Internet access does not place them at greater risk; and

- if children have opportunities for meaningful participation in and through digital platforms and services, including in relation to their governance.

For Internet governance organizations, along with child rights organizations, companies and states, it is imperative that the conditions under which child users actually live are recognized when designing and distributing online technologies, networks and services. It is particularly pertinent that "the Internet" available to children varies considerably across geopolitical contexts and may not be the same as that experienced by adults (for financial, linguistic, cognitive or social capacities reasons). Indeed, since children's rights are now exercised through the Internet, and since Internet governance organizations themselves influence the nature of the Internet, such organizations should surely concern themselves with children's rights, to the benefit of all.

RESPONSIBILITY FOR ENSURING CHILDREN'S RIGHTS: WHO ARE THE STAKEHOLDERS?

Nye (2014, 7) argues that Internet governance consists of multiple actors who are complexly interlinked in an ecosystem or "regime complex": "While there is no single regime for the governance of cyberspace, there is a set of loosely coupled norms and institutions that ranks somewhere between an integrated institution that imposes regulation through hierarchical rules, and highly fragmented practices and institutions with no identifiable core and non-existent linkages."

In terms of responsibility for children, the UNCRC (and common sense) accords parents the primary responsibility (Article 18 and 3), but states are required to support parents both by managing the wider environment of risks and opportunities in which they bring up their children and by intervening when necessary (for example, when parents are absent or unable) (Article 4). As the environment in which children grow up becomes digitally mediated, parents and the state face particular and new challenges:

- Regarding parents, there is an abundance of evidence that they often lack the awareness, competence, will, time and resources, or the understanding, to protect and empower their children online — and this applies even more in the Global South than the North (Barbosa 2014; ITU 2013; Livingstone and Byrne 2015).
- Regarding states, the transnational and rapidly evolving nature of Internet services and providers limits their power to underpin children's rights online (consider the challenges of law enforcement) within their jurisdictions.

⁴⁵ As pan-European research from EU Kids Online shows, the relation between risk and harm is contingent — and important — but not inevitable (Livingstone et al. 2012). For the complexities of adolescent vulnerability, see also boyd (2014), Internet Safety Technical Task Force (2008), Lenhart (2015) and Whittle et al. (2013).

- Hence, some responsibility for children’s rights in the digital age falls to companies and other intermediaries. This has been taken forward proactively — via a range of best practice solutions, checklists and practical guidance — in the recently produced UNICEF and ITU *Guidelines for Industry*.⁴⁶

In principle, the multi-stakeholder approach required to ensure children’s rights is familiar to those concerned with Internet governance. But for Internet governance organizations, the idea of including parents and children as crucial constituencies in multi-stakeholder governance is less familiar,⁴⁷ even though Article 12 of the UNCRC states that children have the right to participate and express their views “in all matters that concern them.”⁴⁸ There are, however, some signs of change.

For example, there are signs of greater understanding between Internet governance experts and children’s welfare and rights advocates regarding the imperative of dealing with the apparent explosion in availability of images of child sexual abuse on the Internet.⁴⁹ Although widely reviled and — in nearly all countries — illegal, the sheer scale and technical complexity of this problem has generated a new form of multi-stakeholder action involving national and international law enforcement agencies, child

46 For *Guidelines for Industry on Child Online Protection* developed by UNICEF and the ITU, see www.itu.int/en/cop/Documents/bD_Broch_INDUSTRY_E.PDF (Rutgers 2014).

47 In *Finding Common Ground* (CIGI 2014), the Internet governance ecosystem is analyzed in terms of five categories of actor: the private sector, including network operators and content intermediaries, Internet protocol and domain name registries, and the international coordination of state-firm relations; the public sector, including the role of the state in developing national legislation for privacy, data protection, intellectual property, cybercrime, cyberespionage and censorship, as well as regional trade agreements; the United Nations, including the UN Human Rights Council and UN development bodies (UNDP, United Nations Conference on Trade and Development, UN CSTD and UNESCO), UN Group of Governmental Experts, the IGF, the ITU and the UN Guiding Principles on Business and Human Rights and the UN Global Compact; the OECD; and individuals as actors in Internet governance — as participants in the networked public sphere, using the Internet and social media for civic protest and issue-specific campaigning, and to hold governments and corporations to account.

48 For good practice examples, see Nordic Youth Forum (2012) and Third et al. (2014). As the former UN Special Rapporteur on Freedom of Expression observed, not consulting children is problematic both for children in the here-and-now (given their right to be consulted), but it can also be argued that if children are not respected as rights-holders early on, they may not become the responsible adult citizens on which an open and democratic Internet relies (La Rue 2014). Children’s views are a key mechanism by which the particular problems they face online can be discovered. Only then can we gain a clear vision of how their rights are being infringed or going unsupported. See Frau-Meigs and Hibbard for more on this point (2015, forthcoming).

49 For example, the Dynamic Coalition on Child Online Safety, led by ECPAT International, has been part of the IGF since 2009 and has succeeded at raising the issue of child online exploitation in many Internet governance fora. See www.intgovforum.org/cms/dynamic-coalitions-49674/79-child-online-safety#introduction.

rights organizations and private sector firms (network operators, content intermediaries and Internet protocol registries). Some of these responses have occasioned concern among advocates of freedom of expression lest censorious governments take this opportunity to control other kinds of Internet content.

In other areas, adult and child rights can still be seen to conflict, as sometimes do children’s own rights to simultaneously participate and to be protected (Livingstone 2011). For example, how should one weigh children’s privacy rights against the ability of parents and/or companies to monitor children’s online activities sufficiently closely as to protect them from the risk of harm (Bartholet 2011; Shmueli and Blecher-Prigat 2011)? Identity-politics and sexual matters are particularly contentious, with little agreement over which online experiences should fall under expression or information rights and which should trigger efforts to protect the child (CRIN 2014; Gillespie 2013; La Rue 2014). Provision that allows for case-by-case consideration according to the specific context is, in such circumstances, particularly desirable to meet the needs of particular individuals.

Some commentators have regarded institutional or governmental efforts to protect children from sexual or violent offences as offering a cover for politically or theologically motivated censorship or surveillance. In this sense, children’s rights are positioned as an impediment to adult rights: “Child protection arguments are part of a new pattern in which children are increasingly used to justify restrictions not only on their access to information, but also on the rights of adults. In many cases, the restrictions are rooted in a genuine, well-meaning desire to protect children from harmful information, while in others they have been used to defend discrimination and censorship” (La Rue 2014, 13).

Historically, there was some justice to these concerns. But the solution cannot be to neglect or reject the case for children’s protection or, indeed, the full panoply of their rights on- and offline. Ensuring that systems of child protection online are not exploited for other purposes, legitimately or nefariously, must become a key plank of international Internet governance. Moreover, such complexities lead us to focus less on the specific outcomes required of Internet governance bodies in addressing children’s rights, but rather on the necessity for developing child-sensitive processes of consultation, deliberation, evidence and engagement.⁵⁰

Nonetheless, once the case has been accepted that age-specific considerations should apply to processes of Internet governance, we suggest that Internet governance

50 See Lansdown (2011), plus the online tool kit at www.savethechildren.org.uk/resources/online-library/toolkit-monitoring-and-evaluating-childrens-participation.

organizations could productively draw on the experience of child rights organizations and independent child rights bodies and institutions (for example, ombudspersons) — including experts in child protection, child participation, gender and other inequalities, child helplines, education, and so forth. For example, Save the Children UK and UNICEF have collaborated on a resource guide to enable children's voices to be heard by a range of organizations and governance processes. Those organizations supporting participation of children in governance processes have an obligation to prepare children, protect them from harm and ensure their inclusion and non-discrimination (Gibbons 2015, 11).

Social media platforms also offer opportunities for children's engagement, provided that ethical standards and procedures are followed. For example, UNICEF hosts "Voices of Youth", a platform on which a community of youth bloggers and commentators from all over the world offer their insights on a range of topics affecting them. One of the key topics of this platform is digital citizenship.⁵¹

CONCLUSIONS

This paper has examined the available evidence regarding children's rights to provision, protection and participation in the digital age in order to understand the challenges for international Internet governance institutions. Now that children under 18 years old — who have greater needs and fewer resources for either protection or empowerment compared with adults — constitute an estimated one-third of all Internet users, addressing their rights is a priority. Note that throughout this paper we have focused on children rather than young people in general, and we urge the importance of considering children in relation to Internet governance because of their distinctive needs — as legal minors, not necessarily supported by caring and informed adults, often in the vanguard of online experimentation, and with generic human rights and particular rights regarding their best interests and development to their full potential.

This paper has argued that children's rights to, in and through digital media are increasingly interlinked, and it is becoming impossible to distinguish these from their rights "offline." Understanding children's rights in the digital age, together with providing access and balancing protection and participation rights, poses pressing challenges for Internet governance. While the task of underpinning children's rights hardly came into being with the advent of the Internet, the Internet makes pre-existing phenomena newly visible (for example, the existence of sexual activities, both voluntary and coercive, among teenagers) while also providing a new set of tools for monitoring and intervention. It also alters the terrain

on which much of children's lives are lived and, therefore, through which their rights are to be achieved.

There is, for historical and ideological reasons, already a link between Internet governance and human rights frameworks. As Carl Bildt (2013), chair of the Global Commission on Internet Governance, says:

Last year we managed — as a broad coalition of countries — to get the UN Human Rights Council [UNHRC] to adopt the landmark resolution 20/8. Basically, it states that the protection of the freedom of speech and the freedom of information that the UN Universal Declaration of Human Rights [UDHR] seeks to protect in the offline world should apply equally in the online world. That is truly important. For all.

Regarding children's rights, greater steps are needed, because children's human rights necessitate special provision (special protection measures, best interest of the child, evolving capacity, participation, and so on), and there are good reasons to be concerned about whether children's rights will be met even where children and adults' rights are the same. This is because infringements of harm generally have a disproportionate impact on the vulnerable, and thus an approach that is age-generic (arguably, age-blind, by analogy gender-blind or disability-blind approaches) is unlikely to suffice.

In short, while enabling innovation is a central priority for Internet governance, any innovation must recognize that one in three users (or more or less) is likely to be a child — both an independent rights-holder and a legal minor possibly lacking adequate parental or state protection. Internet governance principles, discourses and practices must, therefore, be reshaped to accommodate this knowledge. At present, recognition of children's rights online is impeded by the fact that existing legal approaches to governance (or consumer protection) assume that users are adult, and by the technological difficulty faced by many Internet services of knowing in practice whether a user is an adult or a child.

⁵¹ See www.voicesofyouth.org/en/page-1.

The paper ends with six conclusions and recommendations:

- It is vital that Internet governance organizations recognize that around one in three Internet users is aged under 18, and so assumptions about users (for example users' awareness, understanding, abilities, needs or rights) should **acknowledge and address the fact that an estimated one in three Internet users are children**. We have argued that an age-generic approach on the part of Internet governance and service providers tends to blind them to the specific needs of children, and to normalize an overly adult-centric approach to Internet governance.
- In the context of the CIGI GCIG Paper Series, **it is particularly important that recognition of children's rights is embedded in the activities, policies and structures of Internet governance processes**. It is encouraging that some children's rights are occasionally acknowledged and addressed by Internet governance, in particular those focused on safety and protection. However, **children's rights encompass protection, provision and participation rights**, not only protection rights. The full array of rights is set out in the UNCRC framework, and these apply equally online as offline. Also important are strategies for addressing conflicts among these rights, with particular **care required to ensure that children's rights to provision and participation are not unduly sacrificed in the effort to protect them**.
- While states bear the primary responsibility to ensure the realization of children's rights through the creation of legislative and policy frameworks, there are **other crucial actors involved, including international governance organizations, educators, welfare professionals and the private sector**. This paper has observed that rights frameworks now encompass the activities and responsibilities of business as well as states, for everyone and specifically for children, and has enjoined the Internet industry and Internet governance to embrace this development also.
- This paper has also argued that, in the multi-stakeholder context that characterizes Internet governance, parents and children (and their representatives) should be recognized and included as significant stakeholders. Specifically, **children's participation in Internet governance processes — according to their evolving capacity, directly and/or via appropriate forms of representation, including research — should be supported and rendered efficacious**. This will require specific efforts in terms of educational awareness-raising and empowerment, as well as the provision of civic and institutional mechanisms for inclusion and voice. This could be done, for example, through mainstreaming online concerns in the work of existing independent child rights bodies (human rights commissions or ombudspersons for children).⁵² The effect of this should be both to include children's participation, and also to draw on their expertise and experiences so as to develop ever-more effective governance processes to the benefit of all.
- This can be achieved in part through supporting **a constructive dialogue**, formal and informal, between Internet governance and child rights organizations in order to recognize and address the ways in which the activities of each affects those of the other. Also important will be the development of **mechanisms to represent and implement children's rights online**. These could include codes of practice, guidelines, regulations, checklists and audits, processes for complaint and redress, participatory practices, impact assessments, monitoring and evaluation, and so forth. To develop these, Internet governance organizations could explicitly draw on the experience of child rights organizations (or children's commissioners or ombudspersons) based on their established work in other domains. Many international Internet governance bodies are new players in a complex and fast-changing governance domain, in some contexts lacking established authority or finding it difficult to prove their legitimacy through effective governance outcomes. Since questions of child protection seem especially likely to trigger critical concerns over Internet governance in terms of its remit, accountability and forms of redress (concerns that are particularly difficult for unstable, supranational or self-regulatory organizations to allay,⁵³ it is vital that Internet governance bodies find ways to establish their legitimacy in relation to all stakeholders, including children and those who represent children's rights.
- To underpin the above efforts, **an evidence base is required**. The risks and opportunities afforded to children by the Internet are far from simple or universal, and they remain too little understood. To understand how the Internet is reconfiguring the conditions for children's lives, Internet governance child welfare organizations must understand the interaction between the relevant affordances of the Internet (for instance, how it eases circulation

52 For examples of national consultations with children on issues related to privacy, freedom of expression, online violence and bullying, see the European Network of Ombudspersons for Children Consultation Document: European Commission's Communication on the Rights of the Child (2011–2014) available at: http://ec.europa.eu/justice/news/consulting_public/0009/contributions/public_authorities/023_enoc_part4.pdf.

53 See Puppis and Maggetti (2012).

of content or designs in safety or restrictions) and the contexts of children's lives (cultural, economic, social and family factors). Understanding how children's rights are affected by Internet design, provision and governance must be continually updated by conducting rigorous cross-national research, because the technology is continuously evolving, because children's own understandings and practices continue to develop, and because of the shifting practices of design, distribution and use across diverse contexts that embeds technology in children's lives in consequential ways. The simplest place to begin would be to ensure transparency regarding the numbers of child Internet users. Hence, Internet governance organizations should ensure that important information about children is not hidden behind household statistics or ignored in measures of individuals (often documented only from the age of 14+ or 16+). In short, Internet governance organizations should ensure that important information about children's Internet access and use is collected so that it is known how many children use the Internet and which inequalities or other problems exist.

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WORKS CITED

- Ainsaar, Mare and Lars Loof. 2012. *Online Behaviour Related to Child Sexual Abuse. Literature Report*. Stockholm: Council of the Baltic Sea States, ROBERT: European Grooming Project. www.innocenceindanger.de/wp-content/uploads/2014/05/Online_behaviour_related_to_sexual_abuse.pdf.
- Albury, Kath. 2013. "Young People, Media and Sexual Learning: Rethinking Representation." *Sex Education* 13: 32–44.
- Bakan, Joel. 2011. *Childhood Under Siege: How Big Business Ruthlessly Targets Children*. London: Vintage.
- Barbosa, Alexandre F. 2014. *ICT Kids Online Brazil 2013. Survey on the Internet Use by Children in Brazil*. São Paulo: Brazilian Internet Steering Committee. <http://cetic.br/media/docs/publicacoes/2/tic-kids-online-2013.pdf>.
- Bartholet, Elizabeth. 2011. "Ratification by the United States of the Convention on the Rights of the Child: Pros and Cons from a Child's Rights Perspective." *The ANNALS of the American Academy of Political and Social Science* 633 (1): 80–101.
- Bauman, Sheri, Donna Cross and Jenny Walker, eds. 2013. *Principles of Cyberbullying Research: Definitions, Measures, and Methodology*. New York and Abingdon: Routledge.
- Beger, Gerrit and Akshay Sinha. 2012. *South African Mobile Generation. Study on South African Young People on Mobiles*. New York: UNICEF. www.unicef.org/southafrica/SAF_resources_mobilegeneration.pdf.
- Bildt, Carl. 2013. "Speech by Former Foreign Minister Carl Bildt at the Seoul Conference on Cyberspace, 2013."
- boyd, d. 2014. *It's Complicated — The Social Lives of Networked Teens*. New Haven and London: Yale University Press.
- Brown, Helen. 2009. "Consumer Kids by Ed Mayo and Agnes Nairns—Review." *The Telegraph*, March 13. www.telegraph.co.uk/culture/books/bookreviews/4985897/Consumer-Kids-by-Ed-Mayo-and-Agnes-Nairns-review.html.
- Brown, Ian and Christopher T. Marsden. 2013. *Regulating Code: Good Governance and Better Regulation in the Information Age*. Information Revolution & Global Politics. Cambridge, MA: The MIT Press.
- Castells, Manuel. 2001. *The Internet Galaxy: Reflections on the Internet, Business, and Society*. Oxford and New York: Oxford University Press.
- CIGI. 2014. *Finding Common Ground: Challenges and Opportunities in Internet Governance and Internet-Related Policy*. www.cigionline.org/publications/common-ground.
- . 2015. "Global Commission on Internet Governance." www.cigionline.org/activity/global-commission-internet-governance.
- Collin, Philippa, Kitty Rahilly, Ingrid Richardson and Amanda Third. 2011. *The Benefits of Social Networking Services: A Literature Review*. Melbourne: Young and Well Cooperative Research Centre.
- Committee on the Rights of the Child. 2013. "General Comment No. 16 (2013) on State Obligations Regarding the Impact of the Business Sector on Children's Rights." United Nations. April 17. www.unicef.org/csr/css/CRC_General_Comment_ENGLISH_26112013.pdf.
- Council of Europe. 2007. *Council of Europe Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse*, CETS No. 201. Council of Europe Treaty Office. <http://conventions.coe.int/Treaty/Commun/ChercheSig.asp?NT=201&CM=1&DF=&CL=ENG>.
- CRIN. 2014. *Access Denied: Protect Rights—Unblock Children's Access to Information*. www.crin.org/sites/default/files/access_to_information_final_layout.pdf.
- Davidson, Julia and Elena Martellozzo. 2010. *State of the Nation Review of Internet Safety: Presentation of Findings*. The Telecommunications Regulation Authority, Kingdom of Bahrain. <http://tra.org.bh/media/document/State%20of%20the%20nation%20review%20full1.pdf>.
- Decherney, Peter and Victor Pickard, eds. 2015. *The Future of Internet Policy*. Abingdon: Routledge.
- DeNardis, Laura. 2014. *The Global War for Internet Governance*. New Haven, CT: Yale University Press.
- ECPAT International. 2015. "Written Statement Submitted by Foundation ECPAT International (End Child Prostitution, Child Pornography and Trafficking in Children for Sexual Purposes), a Nongovernmental Organization in Special Consultative Status." New York: United Nations General Assembly. http://ecpat.de/fileadmin/user_upload/Arbeitsschwerpunkte/Sexuelle_Gewalt_in_online_Situationen/20150313_Statement_ECPAT_International.pdf.
- FOSI. 2011. *State of Online Safety Report*. 2011 Edition. Washington, DC: FOSI. www.fosigrd.org/images/grid/pdfs/State-of-Online-Safety-Report-2011-Edition.pdf.
- Frau-Meigs, Divina and Jordi Torrent, eds. 2009. *Mapping Media Education Policies in the World: Visions, Programmes and Challenges*. New York: United Nations Alliance of Civilizations and Grupo Comunicar. <http://unesdoc.unesco.org/images/0018/001819/181917e.pdf>.
- Gasser, Urs. 2014. "Taking Children Seriously: A Call for the Enhanced Engagement of Children in the Discourse on Digital Rights." In *25 Years of the Convention on the Rights of the Child. Is the World a Better Place for Children?*, 117–21. New York: UNICEF. www.unicef.org/publications/files/CRC_at_25_Anniversary_Publication_compilation_5Nov2014.pdf.

- Gasser, Urs, Sandra Cortesi, Momin Malik and Ashley Lee. 2012. *Youth and Digital Media: From Credibility to Information Quality*. Massachusetts, MA: Harvard University, Berkman Center for Internet & Society.
- Gasser, Urs, Colin M. Maclay and John G. Palfrey, Jr. 2010. *Working Towards a Deeper Understanding of Digital Safety for Children and Young People in Developing Nations*. Berkman Center Research Publication No. 2010-7, Harvard Public Law Working Paper No. 10-36. Cambridge, MA: Berkman Center for Internet & Society at Harvard University. https://cyber.law.harvard.edu/publications/2010/Digital_Safety_Children_Young_People_Developing_Nations.
- Gibbons, Elisabeth D. 2015. "Accountability for Children's Rights: With Special Attention to Social Accountability and Its Potential to Achieve Results and Equity for Children." Working Paper, UNICEF Human Rights Unit, Programme Division. www.unicef.org/policyanalysis/rights/files/Accountability-for-Childrens-Rights-UNICEF.pdf.
- Gillespie, Alisdair A. 2013. "Adolescents, Sexting and Human Rights." *Human Rights Law Review* 13 (4): 623–43.
- GSMA. 2013. *Children's Use of Mobile Phones. An International Comparison 2013*. Japan: GSM Association and NTT Docomo Inc. www.gsma.com/publicpolicy/wp-content/uploads/2012/03/GSMA_AND_NTT_DOCOMO_Childrens_Report_WebPages_R1.pdf.
- Frau-Meigs, Divina and Lee Hibbard. 2015 (forthcoming). "Mainstreaming Children's Well-being and Sustainability Through Education 3.0 and Internet governance." GCIG Paper.
- Horton, Jr., Forest Woody. 2013. *Overview of Information Literacy Resources Worldwide*. Paris: UNESCO. <http://unesdoc.unesco.org/images/0021/002196/219667e.pdf>.
- Internet Safety Technical Task Force. 2008. *Enhancing Child Safety & Online Technologies: Final Report of the Internet Safety Technical Task Force to the Multi-State Working Group on Social Networking of State Attorneys General of the United States*. Massachusetts, MA: Harvard University, Berkman Center for Internet & Society. http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/ISTTF_Final_Report.pdf.
- Intersessional Panel of the Commission on Science and Technology for Development. 2014. *The Mapping of International Internet Public Policy Issues*. Geneva: ITU. http://unctad.org/meetings/en/SessionalDocuments/CSTD_2014_Mapping_Internet_en.pdf.
- ITU. 2013. *Measuring the Information Society*. Geneva, Switzerland: ITU. www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2013/MIS2013_without_Annex_4.pdf.
- . 2014a. *Measuring the Information Society Report*. Geneva, Switzerland: ITU. www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2014/MIS2014_without_Annex_4.pdf.
- . 2014b. *The World in 2014. ICT Facts and Figures*. Geneva: ITU. www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2014-e.pdf.
- Jones, Lisa M., Kimberly J. Mitchell and David Finkelhor. 2012. "Trends in Youth Internet Victimization: Findings from Three Youth Internet Safety Surveys 2000–2010." *Journal of Adolescent Health* 50 (2): 179–86.
- Kurbalija, Jovan. 2014. *An Introduction to Internet Governance*. 6th edition. Geneva, Switzerland: Diplo Foundation. www.diplomacy.edu/resources/books/introduction-internet-governance.
- Lansdown, Gerison. 2005. *The Evolving Capacities of the Child*. Florence, Italy: UNICEF Innocenti Research Centre. www.unicef-irc.org/publications/pdf/evolving-eng.pdf.
- . 2011. *Every Child's Right to Be Heard: A Resource guide on the UN Committee on the Rights of the Child General Comment No. 12*. London: Save the Children UK and UNICEF.
- La Rue, Frank. 2014. *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, A/69/335*. New York: United Nations General Assembly. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N14/512/72/PDF/N1451272.pdf?OpenElement>.
- Leiner, Barry M., Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts and Stephen Wolf. 2012. *Brief History of the Internet*. Geneva, Switzerland: Internet Society. www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet#Commercialization.
- Lenhart, A. 2015. *Teens, Social Media and Technology Overview 2015*. Washington, D.C.: Pew Research Center.
- Lippman, Laura and W. Bradford Wilcox. 2014. "World Family Map 2014: Mapping Family Change and Child Well-Being Outcomes." *Child Trends*. www.childtrends.org/?publications=world-family-map-2014-mapping-family-change-and-child-well-being-outcomes.
- Livingstone, Sonia. 2011. "Regulating the Internet in the Interests of Children: Emerging European and International Approaches." In *The Handbook on Global Media and Communication Policy*, edited by R. Mansell and M. Raboy, 505–24. Oxford: Blackwell.
- Livingstone, Sonia and Monica E. Bulger. 2013. *A Global Agenda for Children's Rights in the Digital Age. Recommendations for Developing UNICEF's Research Strategy*. Florence, Italy: UNICEF Office of Research - Innocenti.

- . 2014. “A Global Research Agenda for Children’s Rights in the Digital Age.” *Journal of Children and Media* 8 (4): 317–35.
- Livingstone, Sonia and Jasmina Byrne. 2015. “Challenges of Parental Responsibility in a Global Perspective.” In *Digitally Connected: Global Perspectives on Youth and Digital Media*, edited by Sandra Cortesi and Urs Gasser, 26–29. Cambridge, MA: Berkman Center for Internet and Society, Harvard University. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2585686&download=yes.
- Livingstone, Sonia, Leslie Haddon and Anke Görzig, eds. 2012. *Children, Risk and Safety Online: Research and Policy Challenges in Comparative Perspective*. Bristol: Policy Press.
- Livingstone, Sonia, Leslie Haddon, Anke Görzig and Kjartan Ólafsson. 2011. *Risks and Safety on the Internet: The Perspective of European Children: Full Findings and Policy Implications from the EU Kids Online Survey of 9–16 Year Olds and Their Parents in 25 Countries*. London: EU Kids Online, LSE. <http://eprints.lse.ac.uk/33731/>.
- Madden, Mary, Amanda Lenhart, Maeve Duggan, Sandra Cortesi and Urs Gasser. 2013. *Teens and Technology 2013*. Washington, DC: Pew Research Center. www.pewinternet.org/files/old-media/Files/Reports/2013/PIP_TeensandTechnology2013.pdf.
- Mansell, Robin. 2012. *Imagining the Internet: Communication, Innovation, and Governance*. Oxford: Oxford University Press.
- Martellozzo, E. 2011. *Online Child Sexual Abuse: Grooming, Policing and Child Protection in a Multi-media World*. London: Routledge.
- Mueller, Milton. 2010. *Networks and States: The Global Politics of Internet Governance*. Information Revolution & Global Politics. Cambridge, MA: The MIT Press.
- Nairn, Agnes and Haiming Hang. 2012. *Advergaming: It’s Not Child’s Play. A Review of Research*. Family & Parenting Institute. www.agnesnairn.co.uk/policy_reports/advergaming-its-not-childs-play.pdf.
- NETmundial. 2014. “NETmundial Multistakeholder Statement.” <http://netmundial.br/netmundial-multistakeholder-statement/>.
- Nordic Youth Forum. 2012. *Youth Have Their Say on Internet Governance*. Gothenburg: Nordicom.
- Nye, Jr., Joseph S. 2014. *The Regime Complex for Managing Global Cyber Activities*. Waterloo, Ontario and London: Centre for International Governance Innovation and the Royal Institute for International Affairs. www.sbs.ox.ac.uk/cybersecurity-capacity/system/files/The%20Regime%20Complex%20for%20Managing%20Global%20Cyber%20Activities.pdf.
- OECD. 2011a. *How’s Life? Measuring Well-being*. Paris: OECD Publishing. www.oecd-ilibrary.org/economics/how-s-life_9789264121164-en.
- . 2011b. *The Protection of Children Online*. OECD Digital Economy Papers. Paris: OECD. www.oecd-ilibrary.org/content/workingpaper/5kgcjf71pl28-en.
- . 2012. *Connected Minds: Technology and Today’s Learners*. Paris: OECD. www.oecd-ilibrary.org/content/book/9789264111011-en.
- Ofcom. 2013. *Children and Parents: Media Use and Attitudes Report*. London: Ofcom. <http://stakeholders.ofcom.org.uk/binaries/research/media-literacy/october-2013/research07Oct2013.pdf>.
- O’Neill, Brian, Elisabeth Staksrud and Sharon McLaughlin, eds. 2013. *Children and Internet Safety in Europe: Policy Debates and Challenges*. Gothenburg, Sweden: Nordicom.
- Popovac, Masa and Lezanne Leoschut. 2012. *Cyber Bullying in South Africa: Impact and Responses*. CJCP Issue Paper 13. Claremont: Centre for Justice and Crime Prevention and UNICEF. www.lse.ac.uk/media@lse/research/Research-Projects/Researching-Childrens-Rights/pdf/Issue-Paper-13---Cyberbullying-in-SA---Impact-and-Responses.pdf.
- Puppis, Manuel and Martino Maggetti. 2012. “The Accountability and Legitimacy of Regulatory Agencies in the Communication Sector.” In *Trends in Communication Policy Research: New Theories, Methods and Subjects*, edited by Manuel Puppis and Natascha Just, 77–94. Bristol: Intellect.
- Raftree, Linda and Keshet Bachan. 2013. *Integrating Information and Communication Technologies into Communication for Development Strategies to Support and Empower Marginalized Adolescent Girls*. New York: UNICEF. www.unicef.org/cbsc/files/ICTPaper_Web.pdf.
- Rees, Gwyneth and Gill Main, eds. 2015. *Children’s Views on Their Lives and Well-Being in 15 Countries: An Initial Report on the Children’s Worlds Survey*. York: Children’s Worlds Project (ISCWeb). www.isciweb.org/_Uploads/dbsAttachedFiles/ChildrensWorlds2015-FullReport-Final.pdf.
- Rideout, Victoria J., Ulla G. Foehr and Donald F. Roberts. 2010. *Generation M2: Media in the Lives of 8- to 18-Year-Olds*. Menlo Park, CA: The Henry J. Kaiser Family Foundation. <https://kaiserfamilyfoundation.files.wordpress.com/2013/04/8010.pdf>.
- Rutgers, Catherine, ed. 2014. *Guidelines for Industry on Child Online Protection*. Geneva, Switzerland: International Telecommunications Union. www.itu.int/en/cop/Documents/bD_Broch_INDUSTRY_0909.pdf.
- Sabella, Russell A., Justin W. Patchin and Sameer Hinduja. 2013. “Cyberbullying Myths and Realities.” *Computers in Human Behavior* 29 (6): 2703–11.

- Samuels, Crystal, Qunita Brown, Lezanne Leoschut, Janine Jantjies and Patrick Burton. 2013. *Connected Dot Com: Young People's Navigation of Online Risks. Social Media, ICT's and Online Safety*. South Africa: Centre for Justice and Crime Prevention and UNICEF. www.unicef.org/southafrica/SAF_resources_connecteddotcom.pdf.
- Shmueli, Benjamin and Ayelet Blecher-Prigat. 2011. "Privacy for Children." *Columbia Human Rights Law Review* 42: 759.
- Siebert, Jennifer. 2007. "Protecting Minors on the Internet: An Example from Germany." In *Governing the Internet. Freedom and Regulation in the OSCE Region*, edited by Christian Moller and Arnaud Amoroux, 147–62. Vienna, Austria: Organization for Security and Co-operation in Europe. www.osce.org/fom/26169?download=true.
- Soldatova, Galina, Elena Rasskazova, Ekaterina Zotova, Maria Lebesheva, Marina Geer and Polina Roggendorf. 2014. *Russian Kids Online: Key Findings of the EU Kids Online II Survey in Russia*. Midrand, South Africa: Foundation for Internet Development.
- Staksrud, Elisabeth. 2013. *Children in the Online World: Risk, Regulation, Rights*. New edition. Aldershot: Ashgate.
- Third, Amanda, Delphine Bellerose, Urszula Dawkins, Emma Keltie and Kari Pihl. 2014. *Children's Rights in the Digital Age: A Download from Children Around the World*. Melbourne: Young and Well Cooperative Research Centre.
- UN. 1989. *Convention on the Rights of the Child*. www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx.
- . 2015. *Committee on the Rights of the Child*. United Nations Human Rights. www.ohchr.org/EN/HRBodies/CRC/Pages/CRCIndex.aspx.
- UNESCO. 2015. *Keystones to Foster Inclusive Knowledge Societies: Access to Information and Knowledge, Freedom of Expression, Privacy and Ethics on a Global Internet*. Paris: UNESCO. <http://unesdoc.unesco.org/images/0023/002325/232563e.pdf>.
- UNICEF. 2014. *25 Years of the Convention on the Rights of the Child. Is the World a Better Place for Children?* New York: UNICEF. www.unicef.org/publications/files/CRC_at_25_Anniversary_Publication_compilation_5Nov2014.pdf.
- . n.d. "Fact Sheet: A Summary of the Rights under the Convention on the Rights of the Child." www.unicef.org/crc/files/Rights_overview.pdf.
- UNICEF and Danish Institute for Human Rights. 2013. *Children's Rights in Impact Assessments*. www.unicef.org/csr/156.htm.
- UNICEF Innocenti Research Centre. 2012. *Child Safety Online: Global Challenges and Strategies*. Florence, Italy: UNICEF Innocenti Research Centre. www.unicef-irc.org/publications/pdf/ict_techreport3_eng.pdf.
- UNICEF, UN Global Compact and Save the Children. 2013. *Children's Rights and Business Principles*. <http://childrenandbusiness.org/>.
- van der Gaag, Nikki. 2010. *Because I Am a Girl. The State of the World's Girls 2010. Digital and Urban Frontiers: Girls in a Changing Landscape*. London: Plan International. http://plan-international.org/girls/pdfs/BIAAG_2010_EN2.pdf.
- Wartella, Ellen, Vicky Rideout, Alexis R. Lauricella and Sabrina L. Connell. 2013. *Parenting in the Age of Digital Technology. A National Survey*. Evanston, IL: Center on Media and Human Development. School of Communication. Northwestern University. http://cmhd.northwestern.edu/wp-content/uploads/2015/05/1886_1_SOC_ConfReport_TeensHealthTech_051115.pdf.
- Wartella, Ellen, Vicky Rideout, Heather Zupancic, Leanne Beaudoin-Ryan and Alexis Lauricella. 2015. *Teens, Health, and Technology. A National Survey*. Evanston, IL: Center on Media and Human Development. School of Communication. Northwestern University. http://cmhd.northwestern.edu/wp-content/uploads/2015/05/1886_1_SOC_ConfReport_TeensHealthTech_051115.pdf.
- Webster, S., J. Davidson, A. Bifulco, P. Gottschalk, V. Caretti, T. Pham et al. 2012. *European Online Grooming Project. Final Report*. Brussels: European Commission Safer Internet Plus Programme.
- Whittle, H., C. Hamilton-Giachritsis, A. Beech and G. Collings. 2013. "A Review of Young People's Vulnerabilities to Online Grooming." *Aggression and Violent Behavior* 18 (1): 135–46.
- Wilcox, Brian L., Dale Kunkel, Joanne Cantor, Peter Dowrick, Susan Linn and Edward Palmer. 2004. *Report of the APA Task Force on Advertising and Children*. American Psychological Association. www.apa.org/pi/families/resources/advertising-children.pdf.
- WSIS. 2003. *Declaration of Principles. Building the Information Society: A Global Challenge in the New Millennium*. www.itu.int/net/wsis/docs/geneva/official/dop.html.
- . 2005. "Tunis Agenda for the Information Society." WSIS Geneva 2003-Tunis 2005. www.itu.int/wsis/docs2/tunis/off/6rev1.html.

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ADVANCING POLICY IDEAS AND DEBATE

Global Commission on Internet Governance

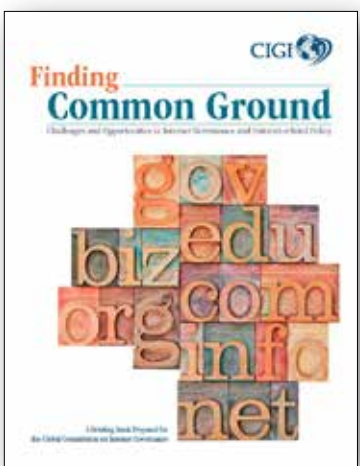
The Global Commission on Internet Governance (GCIG) was established in January 2014 to articulate and advance a strategic vision for the future of Internet governance. The two-year project conducts and supports independent research on Internet-related dimensions of global public policy, culminating in an official commission report that will articulate concrete policy recommendations for the future of Internet governance. These recommendations will address concerns about the stability, interoperability, security and resilience of the Internet ecosystem. Launched by two independent global think tanks, the Centre for International Governance Innovation and Chatham House, the GCIG will help educate the wider public on the most effective ways to promote Internet access, while simultaneously championing the principles of freedom of expression and the free flow of ideas over the Internet.



Toward a Social Compact for Digital Privacy and Security

Statement by the Global Commission on Internet Governance

On the occasion of the April 2015 Global Conference on Cyberspace meeting in The Hague, the Global Commission on Internet Governance calls on the global community to build a new social compact between citizens and their elected representatives, the judiciary, law enforcement and intelligence agencies, business, civil society and the Internet technical community, with the goal of restoring trust and enhancing confidence in the Internet. It is now essential that governments, collaborating with all other stakeholders, take steps to build confidence that the right to privacy of all people is respected on the Internet. This statement provides the Commission's view of the issues at stake and describes in greater detail the core elements that are essential to achieving a social compact for digital privacy and security.



Finding Common Ground

A Briefing Book Prepared for the Global Commission on Internet Governance

This briefing book contextualizes the current debate on the many challenges involved in Internet governance. These include: managing systemic risk — norms of state conduct, cybercrime and surveillance, as well as infrastructure protection and risk management; interconnection and economic development; and ensuring rights online — such as technological neutrality for human rights, privacy, the right to be forgotten and the right to Internet access.

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