

Children’s rights in Digital Environment – Cultural and Geographical Contexts across Europe and Africa

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Abstract

Nowadays online and mobile technologies have become a part of children’s daily lives, whatever the cultural and geographic context. The wide infrastructure of online digital networks, increasing reliance on mobile and social media and associated with it new technological opportunities and risks are the reason why that children’s rights are not only realized in new ways but also very often infringed. This article presents the analysis of the realization of children’s rights online in Europe and Kenya with references to The United Nations Convention on the Rights of the Child (UNCRC).

Introduction

Rapid technological progress has generated new needs inevitably changing the living standards, cultural norms, value of life, and social relationships, which requires a different view on the essentials for childhood framework. Today’s children belong to the generation that was born in a digital world and have grown up surrounded by computers, video games, smartphones, tablets and the Internet. Therefore, they learn, work, write and communicate in a different way from previous generations and prefer watching than reading, indirect than direct communication and are more likely to meet online than in person.

Undoubtedly, digital technologies give great opportunities for learning and education to children. But on the other hand, the existing delusion of the safe use of ICT tools creates conditions for manipulation, controls people's consciousness and above all else, leaves the young, immature user alone with information technology without showing the mechanisms that shape this situation. What is more, online access is becoming a new dividing line, as millions of children, especially from Africa, who could most benefit from digital technology are missing out. Thus, in the era of rapid technological change, many states around the world are struggling with problems concerning children's participation in digital environments. It is associated with lack of necessary knowledge in many areas concerning children's participation in the digital world. All the more, the majority of researchers focus on adolescents (Livingstone & Bulger, 2014; Ólafsson, Livingstone & Haddon, 2014; Kamaku & Mberia, 2018) and overlook children in preschool and early school age, although, in most countries, they are gaining internet access. Also, little is known of their capacities, skills, practices or contexts of engagement. However, according to Article 8, pt. 1 of the General Data Protection Regulation (GDPR), offering information society services to children below the age of 13 requires consent from their parents or custodians. This follows the legislative approach of the US, which is present in the Children's Online Privacy Protection Act (COPPA).

Taking into account that today's children spend more and more time using ICT it is needed to discover if and how their rights are respected in the digital space. Therefore, the main goal of this article is to establish the realization of children rights indicated in The United Convention on the Rights of the Child basing on analysis of its individual articles and available literature.

Digital rights of children in the light of *The United Nations Convention on the Rights of the Child*

Recognition of children as subjects of rights is expressed, explicitly or implicitly, in The United Nations Convention on the Rights of the Child (UNCRC). According to its definition, a child is "any human being below the age of eighteen years, unless under the law applicable to the child, majority is attained earlier" (Art. 1). Although the Convention was created at a time when digital technology was not yet that advanced, it is possible and necessary to apply these rights nowadays. Analysis of respective articles allowed for determining four areas which show how existing rights might be understood or enacted in relation to the digital context.

Children's right to online connectivity – is associated above all with active participation in the digital community and includes access to online information and disseminating content through the media (*Art. 17*), freedom of thought (*Art. 14*) and association (*Art. 15*), the possibility of seeking and receiving information (*Art. 13*) without discrimination on the basis of sex, age, economic resources, nationality, ethnicity, place of residence, as well disability (*Art. 2*), which is also underlined in *Art. 23*, pt.1. Participation in the online environment obviously requires adequate devices, thus, it should be also taken into account what kind of digital media children have and how they use them.

Children's right to online empowerment – is connected with the usage of all the opportunities provided by new technologies for educational purposes (*Art.28*), including freely available content in a language that children understand (*Art. 30*) to help them reach their full potential and also prepare them “for responsible life in a free society” (*Art. 29*). In this context, education is understood also as acquiring competences and skills relating to Internet use, including critical reception of online content. Undoubtedly, universal access to online education may help to avoid intensification or creation of new barriers between rich and poor countries (*Art. 6*).

Children's right to online protection –includes especially children's online security from information and material injurious to their well-being (*Art. 17e*) such as protection against all forms of violence, abuse and neglect (*Art. 19*), including sexual exploitation and abuse (*Art. 34*) and other forms of exploitation detrimental to the child's welfare (*Art. 36*) as well the child's right to preserve his/her identity (*Art. 8*). In the virtual environment, the last article is closely associated with *Art. 16*, which underlines children's right to privacy, i.e., the right to withhold their personal data on the Internet and to preserve identity and image from possible unlawful use.

Children's right to online play – includes access to cultural and artistic events and all forms of recreation and leisure activities using the Internet and other technologies appropriate to children's age, including computer games (*Art. 31*). Although it has a strong relationship to the other three areas mentioned above, it is, sadly, often a “forgotten right” (Hodgkin & Newell, 2007), thus, it deserves special attention. It is, of course, common knowledge that play and recreation are essential to the development of creativity, imagination, self-confidence, social skills as well cognitive and emotional strength, so they have a particular influence on children's health and well-being.

The realization of children's rights in digital space

Certainly, some countries are further ahead in the struggle for children's rights online than other ones. Thus, there are considerable differences not only in the extent of use, but also in the ways in which ICT are utilized in Europe and Third World countries, as well as the social impacts they may have.

European countries seem to be on their way to a conscious, critical and responsible use of ICT in children's everyday life. However, in Africa there is still no autonomy in the use of ICT by children and their access to new technology is largely limited. As an example, Kenyans just learn how to use new technology. But on the other hand, Kenya (apart from using English as an official language) also shares similarities and differences with European countries because, being a postcolonial country, is – for better and for worse – influenced by European culture. What is more, there is an extreme diversity in Kenya in terms of ICT use by children according to the part of country they live in, which creates absolutely different digital environments and generates different problems. For instance, at Mombasa Coast children are often victims of widespread sex tourism and also *Webcam Child Sex Tourism* (WCST), whereas in Nairobi, Kenyan capital city, on the one hand the children's environment is quite similar to that in European countries, but on the other hand, it is surrounded by the biggest slums in Africa – Kibera – characterized by extreme poverty and ubiquitous violence.

There is no doubt that the realization of children's rights in digital space is highly affected by complex economic and political factors, socio-demographic resources (Livingstone, 2014), cultural context and “shared communication and familial conditions” (Swist et al., 2015), both across and within countries. Unfortunately, these circumstances easily become a source of deepening inequality rather than the means of securing children's rights in the digital environment. This applies especially to children with chronic illness or disability, children in poverty and experiencing homelessness, as well as children whose primary language is other than English, who in this way often become victims of racism, discrimination and social exclusion, also in the digital space (Livingstone & Bulger, 2013; Livingstone & O'Neill, 2014; Robinson et al., 2014).

The rapid development of information and communication technology has reshaped children's lives, blurring the boundaries between offline and online, creating a world extraordinarily different from the world experienced by previous generations. In other words, today's children – digital natives (Prensky, 2001) – are immersed in digital technology, and computers, smartphones, social networks and the Internet are essential aspects of their everyday lives. At the same time, these

changes have created one of the biggest challenges facing societies today, which is linked to inequalities and power relationships which underlie them (Hendrix, 2005), called “info-exclusion”, “the digital divide” or the “digital gap”. Generally speaking, what is in question is the new dividing line between those who have access to new information technology and those who do not.

Of course, access goes with the question of digital devices used by children. European children, born during the early 21st century, have never regarded the Internet as a new phenomenon – it is just there. So, to many of them it is an obvious and natural element of their everyday life, a tool for various purposes: communication, learning, recreation and entertainment. However, according to UNICEF (2017), almost 60% of African youth are not online, compared with just 4% in Europe. As access to digital environment is device-based, it causes digital divide, visible especially in Kenya, where children usually do not own devices. As Bob Collymore, CEO of Kenya's largest mobile operator Safaricom, says – “many kids in Kenya will probably not see a computer or laptop until adulthood” (Prior, 2016, p. 20). According to data collected by the World Economic Forum, most European households are equipped with a personal computer (e.g., the UK – 90.8%, the Czech Republic – 78.5% and Poland – 77.7%) while in Kenya this percentage is only 12.3% (Dutta, Geiger & Lanvin, 2016, p. 240). Thus, the global digital divide, in terms of disparities in children's access to the Internet and information, is still very obvious geographically.

Access to and use of the digital media is a question of resources at many levels and depends on the political situation, legislation and social factors (cf., Walton & Pallitt, 2012; Banaji, 2015), such as gender, which among other factors is already a key source of discrimination, even within more economically developed countries. The growth of digital resources even threatens to deepen gender discrimination. In fact, in Europe gender inequalities are small in contrast to African countries. Most research shows that girls' access and opportunities connected with digital media use are far more restricted than those of boys – girls usually are less likely to be given expensive devices and have less freedom to seek information or opportunities of expression (Hasebrink, Livingstone & Haddon, 2008; UNICEF, 2013a; UNCTAD, 2014; GSMA, 2015; WEF, 2015). On the other hand, online spaces under the right circumstances can provide support to gain needed resources, which is a particular benefit to those who are vulnerable to discrimination offline (cf., Coleman & Hagell, 2007; ITU, 2012; Banaji & Buckingham, 2013; UNICEF, 2013b; Robinson et al., 2014; WEF, 2015).

However, access to the digital space alone, without proper purposive activities, cannot ensure the implementation of children's rights in an appropriate way.

Preparation of children “for responsible life in a free society” (UNCRC, Art. 29), also in the digital space, requires empowerment, which can be understood as any process that enables “autonomy, self-direction, self-confidence, self-worth” (Narayan, 2005, p. 3). Therefore, “the use of ICTs at all stages of education, training and human resource development should be promoted, taking into account the special needs of persons with disabilities and disadvantaged and vulnerable groups” (ITU, 2003, p. 30).

Digital technologies have a big potential in this sphere, being both the largest easily accessible, single source of information, reference materials, resources and means of communication, play a fundamental role in children’s educational and social experiences (Prensky, 2001; Bennett, Maton & Kervin, 2008; Tapscott, 2008). Moreover, together with the contents aligned with the curriculum, they can become a basis for computer-assisted personalized learning.

However, economic and technological reality, which determines the formation and development of the network society (Castels, 2001; Tapscott, 2008), is changing much faster than the reality of education. Although in many European countries heavy investments have been made in ICT for use by teachers and students, the purposes of these investments have not always been clear or made explicit, which has often led to the portrayal of teachers as technophobic or technically incompetent (Higgins, 2003). Also, Kenyan schools try to implement ICT to education and learning, which is also supported by national policies (Mutong’wa et al., 2014; Avallain Foundation, 2017) and for many children in Kenya this is the only opportunity to use digital media and gain access to the Internet. However, as Lucas and Mbiti (2011) have found, more boys than girls complete primary school. The main reason is costs of education such as uniforms, provisions for boarders and other school input fees (Alderman & King, 1998) and many families in Kenya live in extreme poverty. Moreover, daughters still play a large role in substituting their mothers at home. Thus, the opportunity cost of sending daughters to school will be higher than that of sons. Another reason for non-school attendance among girls is early-pregnancy, which is still a common problem in Kenya (Lloyd, Mensch & Clark, 2000). In this way, most girls in Kenya are not only excluded from the educational process but they also lose the opportunity offered by digital media.

It is a fact that schools, with the support of national policies, increasingly use ICT as a means to step up the education system. In this connection, it is quite important to evaluate whether such deployments are accompanied by adequate child protection mechanisms, and if not, what are the missing links. An example is Kenya, which invested heavily in ICT implementation, but child protection measures have not scaled up accordingly (Bose & Coccaro, 2013, p. 3). Stephen and

Plowman (2002) associated the worries with children's ICT use, which they classified into four groups: (a) deleterious to physical health, (b) harmful to children's learning, cognitive, social, and emotional development, (c) exposure to harmful contents, and (d) displacing other important learning and play activities by new technologies (Stephen et al., 2002, pp. 33–38).

What is more, as Livingstone, Carr and Byrne (2015) rightly said, the Internet is age-blind. Online platforms or services are usually unable to determine the age of users, so children are often treated online as adults. As a consequence, it is very difficult, or sometimes even impossible, to provide appropriate support to children's needs and rights in the online environment. The paradox of ICT use is also that these tools create a plane of equality of access, which means that the same rules apply to an expert and an amateur. But it should be emphasized that every online activity undertaken by children under the age of 13 requires parental consent (Article 8, pt. 1 of GDPR). Unfortunately, this obligation is often overlooked because, as research shows, many children under the age of 13 have become social media users often without their parents' awareness (Hasebrink, Livingstone & Haddon, 2008). Paradoxically, in some cases, parents' online activity causes a violation of children's rights. An example is the phenomenon of sharenting (Jomhari, Gonzalez & Kurniawan, 2009; Brosch, 2016; Blum-Ross & Livingstone, 2017; Brosch, 2018), defined as "making public by parents a lot of detailed information about their children in the form of photos, videos and posts through social media, which violate children's privacy" (Brosch, 2018, p. 78). In this way, parents not only disclose their child's personal data, violating Art. 8 and Art. 16 of the UNCRC, but also by posting inappropriate contents they even ridicule or humiliate their child (UNCRC: Art 17e). As a consequence of sharenting, children get their digital footprint, growing up with a conviction that sharing personal details is natural practice, because – as Mark Zuckerberg, CEO of Facebook, said – "That social norm is just something that has evolved over time" (Johnson, 2010). Some researchers report also such risks as digital kidnapping (O'Neill, 2015) or online paedophilia (Durkin & Bryant, 1999; Jenkins, 2001). Therefore, the question of parents' rights over children's privacy, and regarding contested use of school data are the subject of many discussions (Berson & Berson, 2006; Lwin, Stanaland & Miyazaki, 2008; Shapiro, 2014; Singer, 2014; Goh, Bay & Chen, 2015).

Having more access to online technology means that children's interactions with potential abusers and exploiters are no longer limited to their place of residence. Therefore, such online phenomena as cyberbullying, child-grooming, soliciting sexual services, offering sexualized images and many other ways of abuse, have become more and more common practice in virtual space (Meridian et al., 2011;

Lievens, 2014; Korenis & Billick, 2014; Steel, 2015). The research conducted by ECPAT in Eastern Europe revealed quite extensive use of the Internet to sexually exploit children and numerous cases of harassment by their peers, some with tragic consequences (ECPAT, 2008, 2014). This problem is especially significant in Kenya, where more than 50% of children has accessed adult pornography online and every third child has seen such images at the cybercafé at late hours (Bose & Coccaro, 2013). Research has also shown that Kenyan girls are still highly susceptible to sexual violence in real life and not only as victims of sex tourism industry, but also within the school environment (Jones, 2006; UNICEF, 2011; ECPAT, 2014). Hence, the anonymity offered by the online environment creates an even greater scope for abuse.

Accordingly, the approach towards children's online protection is culturally different, which undoubtedly affects the policy and practices for safe ICT use among children and youth. It is a fact that the introduction of the safe use of ICT to the school curriculum is still a rarity in many European countries (e.g., Poland), as well as an unknown practice (many schools in Kenya). There is no doubt that children in Europe, as well in Africa, are increasingly using the Internet and ICT tools at home, schools and public spaces, but at the same time they receive poor guidance to ensure their safety online (Bose & Coccaro, 2013).

The experience of online opportunities and risks is strongly associated with activities which children undertake in their free time. As research has shown, both European and African children are spending online a large proportion of their free time and perceive entertainment, games and fun as major benefits of Internet use (Hasebrink, Livingstone & Haddon, 2008; UNICEF, 2013a). This issue is expressed in Article 31, pt. 1 of the UNCRC, which states that countries must "recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts". In general, play is defined as "children's activities which are not controlled by adults and which do not necessarily conform to any rules" (Hodgkin & Newell, 2007, p. 469).

Although the benefits for children from (most of) play are undisputable, what is shown by copious research, including development of creativity, cognitive processes and social capabilities (Lester & Russell, 2010; Whitebread, 2012), the child's right to play is simultaneously the most depreciated among others. Therefore, as Moyles (2013) has pointed out, "the fact that we are still having to justify play's existence in children's cognitive, physical and social development seems incredible and appears to reflect an intransigence – even ignorance – on the part of policy makers and those who regulate the policies" (p. 3). The trivi-

alization of children's play is probably due to the fact that playing just for fun is often viewed as a waste of time comparing to extracurricular activities, which are perceived as more important than simply "playing". Thus, in many European countries a trend is emerging to focus on children's more formalised activities and educational objectives rather than recreational, which often leads to elimination of free playtime. The situation in Kenya is different and also much more dramatic because both parents and teachers do not usually give children adequate time and priority for play. It is caused by negative aspects of some traditions and cultural practices, like FGM (Female Genital Mutilation), early marriages and also by widespread poverty (ECPAT, 2007). In consequence, many children are burdened with housework or are simply left alone (Palmqvist, 2006). So, sometimes the only one possibility for them is to play at school (if they attend school). This shows how strongly children's play is interwoven into the cultural, social, and physical fabric of everyday life (Meire, 2007). It is a very serious problem, all the more that in Kenya ethical guidelines on child rights are little known and poorly implemented (Burton, 2014). Also, children's right to play via digital media is disputed by many researchers. Some emphasize the negative influence of digital media use on children's behavior, such as exposure to simulated violence and death (Byron, 2008; Anderson & Warburton, 2012). Others indicate positive aspects of children's digital play, such as fostering art and drawing skills (Couse & Chen, 2010; Price, Jewitt & Crescenzi, 2015) and development of creative thinking through problem solving (Harwood et al., 2015).

In fact, children enjoy playing with toys that are digitally enabled in some way and according to Article 31 of the UNCRC, they have a right to do that. As play is both a right and essential for the optimal development of children, promoting all children's right to play is not a trivial matter to be taken lightly. Thus, children's right to play should be treated in the same way as other rights, all the more that it is fundamentally linked to them.

Conclusion

In conclusion, much evidence points to the fact that digital media are adopted in most parts of the world, and for children – digital natives – being online is practically second nature. At the same time, guidelines on the support of children's rights are little known, and as a result children's rights in the digital space are often infringed. Taking the above into account, it can be surmised that the adverse and discriminatory implications for the child's best interests with regard to both gain-

ing and lacking access to digital media will increase, unless specific and targeted efforts addressing children's rights online are taken.

Thus, the biggest challenge for policy-makers, professionals and organizations supporting children is to maximize the benefits without exacerbating existing vulnerabilities or exposing children to harm. Another key challenge is that many theories and methods concerning children's digital media use have been developed and implemented in European countries, while in Kenya it is still unknown territory. Therefore, digital inclusion is so important for Kenyan children to find a balance between their empowerment and protection the online environment.

What should be also mentioned are many initiatives taken by organisations such as UNESCO, UNICEF, ECPAT International, Council of Europe, which aim at paying attention to children's rights in the digital space. However, the evidence on how children's online rights are respected and fulfilled is still scattered and patchy in most countries, and especially in Kenya. Hence, more research is needed to better understand these issues.

References

- Alderman, H., King, E.M. (1998). Gender Differences in Parental Investment in Education. *Structural Change and Economic Dynamics*, 9(4), 453–468.
- Anderson, C.A. & Warburton, W.A. (2012). The impact of violent video games: An overview. In: W. Warburton & D. Braunstein (Eds.) *Growing Up Fast and Furious: Reviewing the Impacts of Violent and Sexualised Media on Children*, Annandale, NSW, Australia: The Federation Press, 56–84.
- Avallain Foundation (2017). *The Avallain Foundation RCT-Based Impact Study: The impact of a-ACADEMY digital learning platform on children's performance in class 6 science in Kenya*. Received from: <https://avallainfoundation.org/avallain-foundation-provides-a-academy-to-nyumbani-childrens-home/>
- Banaji, S. & Buckingham, D. (2013). *The civic web: Young people, the internet and civic participation*. Cambridge, MA: The MIT Press.
- Banaji, S. (2015). Behind the high-tech fetish: Children, work and media use across classes in India. *International Communication Gazette*, 77(6), 519–32. DOI: 10.1177/1748048515597874.
- Bennett, S., Maton, K. & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775–786.
- Berson, I.R. & Berson M.J. (2006). Children and their digital dossiers: Lessons in privacy rights in the digital age. *International Journal of School Education*, 21(1), 135–147. Retrieved from: <http://files.eric.ed.gov/fulltext/EJ782348.pdf>
- Blum-Ross, A. & Livingstone, S. (2017). Sharenting, parent blogging, and the boundaries of the digital self. *Popular Communication*, 15(2), 110–25.

- Bose, A. & Coccaro, R. (2013). *Understanding African children's use of information and communication technologies (ICTs)*. ECPAT International. Retrieved from: http://www.ecpat.org/wp-content/uploads/legacy/ICT%20Research%20in%20AFRICA_p1.pdf
- Brosch, A. (2016). When the Child is born into the Internet: Sharenting as a growing trend among parents on Facebook. *The New Educational Review*, 43(1), 225–235.
- Brosch, A. (2018). Sharenting – Why Do Parents Violate Their Children's Privacy? *The New Educational Review*, 54(4), 75–85.
- Burton, A., Baerthlein, T., Daftari, N., Rambaud, B., & Roshani, N. (2014). *Protecting the rights of children: the role of the media – Lessons from Brazil, India and Kenya*. Internews Europe. Retrieved from: <https://www.internews.org/resource/protecting-rights-children-role-media>
- Byron, T. (2008) Children and New Technology. Department for Culture Media and Sport (DCMS), ISBN: 978–1-84775–134–8, Retrieved from: www.dcsf.gov.uk/byronreview
- Castels, M. (2001). *The internet galaxy. Reflection on the Internet, Business, and Society*. London: Oxford University Press.
- Coleman, J. and Hagell, A. (2007). *Adolescence, risk and resilience: Against the odds*. Chichester, West Sussex, England: Hoboken, NJ: J. Wiley & Sons.
- Convention on the Rights of the Child, G.A. res. 44/25, annex, 44 U.N. GAOR Supp. (No. 49) at 167, U.N. Doc. A/44/49 (1989), entered into force Sept. 2 1990.
- Couse, L.J., & Chen, D.W. (2010). A tablet computer for young children? Exploring its viability for early childhood education. *Journal of Research on Technology in Education*, 43, 75–98.
- Durkin, K.F. & Bryant, C.D. (1999). Propagandizing pederasty: A thematic analysis of on-line exculpatory accounts of unrepentant pedophiles. *Deviant Behavior*, 20, 103–127.
- Dutta, S., Geiger, T., Lanvin, B. (2016) *The Global Information Technology Report 2016*. Geneva. ISBN: 978–1-944835–03–3.
- ECPAT International (20017). *Confronting the commercial sexual exploitation of children in Africa*. Bangkok.
- ECPAT International (2008). *Regional Overview of Child Sexual Abuse Images through the Use of Information and Communications Technologies in Belarus, Moldova, Russia and Ukraine*. Retrieved from: <http://lastradainternational.org/doc-center/2332/regional-overview-on-child-sexual-abuse-images-through-the-use-of-information-and-communication-technologies-in-belarus-moldova-russia-and-ukraine>
- ECPAT International (2014) *The commercial sexual exploitation of children in the Commonwealth of Independent States. Developments, progress, challenges and recommended strategies for civil society*. Bangkok;
- FTC (1998) *Children's Online Privacy Protection Act of 1998 (COPPA)*, 15 U.S.C. §§ 6501–6506. Retrieved from: <https://www.ftc.gov/enforcement/rules/rulemaking-regulatory-reform-proceedings/childrens-online-privacy-protection-rule>
- General Data Protection Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016. *Official Journal of the European Union*, L 119/1. Retrieved from: <https://gdpr-info.eu/>

- Goh, W.W.L., Bay, S. & Chen, V.H. (2015). Young school children's use of digital devices and parental rules. *Telematics and Informatics*, 32(4), 787–795. DOI: 10.1016/j.tele.2015.04.002.
- GSMA (2015). *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*. Retrieved from: www.gsma.com/mobilefordevelopment/programmes/connected-women/bridging-gender-gap
- Harwood, D., Bajovic, M., Woloshyn, V., Di Cesare, D.M., Lane, L., & Scott, K. (2015). Intersecting spaces in early childhood education: inquiry-based pedagogy and tablets. *The International Journal of Holistic Early Learning and Development*, 1, 53–67.
- Hasebrink, U., Livingstone, S., & Haddon, L. (2008) *Comparing children's online opportunities and risks across Europe: cross-national comparisons for EU Kids Online*. EU Kids Online (Deliverable D3.2). EU Kids Online, London, UK. ISBN 9780853283522. Retrieved from: <http://eprints.lse.ac.uk/21656/>
- Hendrix, E. (2005). Permanent injustice: Rawls' theory of justice and the digital divide. *Educational Technology & Society*, 8(1), 63–68.
- Higgins, S. (2003). *Does ICT improve learning and teaching in schools?* Newcastle University: A professional user review of UK research undertaken for the British Educational Research Association. Retrieved from: <https://dysgu.llyw.cymru/docs/learningwales/publications/121122ictlearningen.pdf>
- Hodgkin, R. and Newell, P. (2007). *Implementation Handbook for the Convention on the Rights of the Child, 3rd edition*. Geneva: UNICEF. ITU (2003). *Declaration of Principles Building the Information Society: a global challenge in the new Millennium*. (Document No. WSIS-03/GENEVA/DOC/4-E). Retrieved from <http://www.itu.int/net/wsis/docs/geneva/official/dop.html>
- ITU (2012). *A bright future in ICTs: Opportunities for a new generation of women*. Retrieved from www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Documents/ReportsModules/ITUBrightFutureforWomeninICT-English.pdf
- Jenkins, P. (2001). *Beyond tolerance: Child pornography on the Internet*. New York: New York University Press.
- Johnson, B. (2010). Privacy no longer a social norm, says Facebook founder. *The Guardian*. Received from: <https://www.theguardian.com/technology/2010/jan/11/facebook-privacy>
- Jomhari, N., Gonzalez, V.M. & Kurniawan S.H. (2009). See the apple of my eye: baby storytelling in social space. In: . A. Blackwell (ed.), *Celebrating People and Technology. Proceedings of HCI 2009*. Churchill College Cambridge, United Kingdom, 238–243. Retrieved from: http://www.bcs.org/upload/pdf/ewic_hci09_paper29.pdf
- Jones, C.S. (2006). *The Extent and Effect of Sex Tourism and Sexual Exploitation of Children on the Kenyan Coast*. UNICEF and Government of Kenya.
- Kamaku, M.N. & Mberia, H. (2018). Social Sites Accessibility and the Rise of Sexual Harassment among Teenagers in Kenya. *International Journal of Recent Research in Social Sciences and Humanities (IJRRSSH)*, 5(1), 64–72.

- Korenis, P., Billick, S.B. (2014). Forensic Implications: Adolescent Sexting and Cyberbullying. *Psychiatric Quarterly*, 85, 97–101. DOI 10.1007/s11126-013-9277-z.
- Lester, S. & Russell, W. (2008). *Play for a Change – Play, Policy and Practice: A review of contemporary perspectives*. London: Play England.
- Lievens, E. (2014). Bullying and sexting in social networks: Protecting minors from criminal acts or empowering minors to cope with risky behaviour? *International Journal of Law, Crime and Justice*, 42, 251–270.
- Livingstone, S. & O'Neill, B. (2014). Children's rights online: Challenges, dilemmas and emerging directions. In S. van der Hof, B. van den Berg and B. Schermer (eds.) *Minding minors wandering the web: Regulating online child safety*, 19–38. Berlin: Springer. Retrieved from: <http://eprints.lse.ac.uk/62276/>
- Livingstone, S. (2014). Children's digital rights: a priority. *Intermedia*, 42(4/5), 20–24. Retrieved from: <http://eprints.lse.ac.uk/60727/>.
- Livingstone, S. and Bulger, M. (2013). *A global agenda for children's rights in the digital age: Recommendations for developing UNICEF's research strategy*. Florence: UNICEF Office of Research. Retrieved from: www.unicef-irc.org/publications/pdf/lse%20olol%20final3.pdf
- Livingstone, S., & Bulger, M.E. (2014) A global research agenda for children's rights in the digital age. *Journal of Children and Media*, 8(4), 317–335. ISSN 1748–2801.
- Livingstone, S., Carr, J. & Byrne, J. (2015). One in three: Internet governance and children's rights. *Global Commission on Internet Governance Paper Series*, 22. Retrieved from: www.cigionline.org/sites/default/files/no22_2.pdf.
- Lloyd, C.B., Mensch, S. B. & Clark, W. (2000). The Effects of Primary School Quality on School Dropout Among Kenyan Girls and Boys. *Comparative Education Review*, 44(2). DOI: 10.1086/447600
- Lucas, A.M. & Mbiti, M.I. (2011) Does Free Primary Education Narrow Gender Differences in Schooling? Evidence from Kenya, SMU Working Paper. Retrieved from: <https://www.aeaweb.org/conference/2011/retrieve.php?pdfid=305>.
- Lwin, M.O., Stanaland, A.J.S. and Miyazaki, A.D. (2008). Protecting children's privacy online: How parental mediation strategies affect website safeguard effectiveness. *Journal of Retailing*, 84(2), 205–217. DOI: 10.1016/j.jretai.2008.04.004.
- Marsh, J. (2014). Online and offline play. In A. Burn & C. Richards (eds.), *Children's games in the new media age*. Cambridge: Ashgate, 109–131.
- Meire, J. (2007). Qualitative research on children's play: a review of recent literature. In T. Jambor & J. Van Gils (eds.) *Several Perspectives on Children's Play*. Antwerp: Garant.
- Merdian, H.L., Curtis, C., Thakker, J., Wilson, N. & Boer, D.P. (2011). The three dimensions of online child pornography offending. *Journal of Sexual Aggression*. DOI:10.1080/1352600.2011.611898;
- Moyles, J. (2013). I. Open University Press – McGraw Hill Education: London.
- Mutong'wa, S.M., Esau, M., Ogenda, E.O., Tenge, E. & Nasiuma, B. (2014) Investigation of Information Communication Technology in Kenyan Primary Education Sector. *Journal of Emerging Trends in Computing and Information Sciences*. 5(7). ISSN 2079–8407.

- Narayan, D. (2005). Conceptual framework and methodological challenges. In D. Narayan (ed.), *Measuring empowerment: Cross-disciplinary perspectives*. Washington, DC: The World Bank.
- O'Neill, J. (2015). *The Disturbing Facebook Trend of Stolen Kids Photos*, Retrieved from: <https://www.yahoo.com/parenting/mom-my-son-was-digitally-kidnapped-what-112545291567.html>
- Ólafsson, K., Livingstone, S. & Haddon, L. (2014) *Children's Use of Online Technologies in Europe. A review of the European evidence base*. ISSN 2045–256X
- Palmqvist, E. (2006). *Children's Rights in Kenya – an Analysis Based on the CRC Reports*. Save the Children Sweden. Nairobi, Kenya.
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 1. *On the Horizon*, 9(5), 1–6.
- Price, S., Jewitt, C. & Crescenzi, L. (2015). The role of iPads in pre-school children's mark making development. *Computers and Education*, 87, 131–141.
- Prior, V. (2016) Children's rights in the digital era: action must come from the top of business. In: *Children's Rights and the Internet: From Guidelines to Practice*. UNICEF, London, UK.
- Robinson, K.H., Bansel, P., Denson, N., Ovenden, G. and Davies, C. (2014). *Growing up queer: Issues facing young Australians who are gender variant and sexually diverse*. Melbourne, VIC: Young and Well Cooperative Research Centre.
- Shapiro, J. (2014). Your kid's school may have the right to sell student data. *Forbes*. Retrieved from: www.forbes.com/sites/jordanshapiro/2014/01/24/your-kids-school-may-have-the-right-to-sell-student-data/#458433104990;
- Singer, N. (2014). With tech taking over in schools, worries rise. *The New York Times*. Retrieved from: <http://sitcomputerscience.pbworks.com/w/file/fetch/86037319/With%20Tech%20Taking%20Over%20in%20Schools,%20Worries%20Rise%20-%20NYTimes.com.pdf>.
- Steel, C.M. (2015). Web-based child pornography: The global impact of deterrence efforts and its consumption on mobile platforms. *Child Abuse & Neglect*, 44, 150–158.
- Stephen, C. & Plowman, L. (2002). ICT in pre-school settings: Benign addition or playroom revolution? *Early Childhood Folio*, 7, 33–38.
- Swist, T., Collin, P., McCormack, J. & Third, A. (2015). *Social media and the wellbeing of children and young people: A literature review*. Commissioner for Children and Young People, Western Australia.
- Tapscott, D. (2008). *Grown up digital: How the Net Generation is changing your world*. New York: McGraw-Hill.
- UNCTAD (United Nations Conference on Trade and Development) (2014). *Measuring ICT and gender: An assessment*. Geneva and New York: UN. Retrieved from: www.uis.unesco.org/Communication/Documents/measuring-ict-and-gender.pdf
- UNICEF (2013a). *A (Private) Public Space – Examining the use and impact of digital and social media among adolescents in Kenya*
- UNICEF (2013b). *Integrating ICTs into communication for development strategies to support*

- and empower marginalized adolescent girls*. New York: UNICEF. Retrieved from: www.unicef.org/cbsc/files/ICTPaper_Web.pdf
- UNICEF (2017). *The State of the World's Children 2017: Children in a Digital World*.
- UNICEF Spain (2012). *Children's well-being from their own point of view. What affects the children's well-being in the first year of Compulsory Secondary Education in Spain?*, UNICEF Spain, Madrid.
- UNICEF: South African Council of Educators (2011), *School-based violence report: An overview of School-based Violence in South Africa*. Received from: <http://www.sace.org.za/upload/files/School%20Based%20Violence%20Report-2011.pdf>
- United Nations, Chapter IV: Human Rights, 11. c. *Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography*. Status of Treaties. https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-11-c&chapter=4&clang=_en
- Walton, M. and Pallitt, N. (2012). 'Grand Theft South Africa': Games, literacy and inequality in consumer childhoods. *Language and Education*, 26(4), 347–361. DOI: 10.1080/09500782.2012.691516.
- WEF (2015). *Global information technology report*. Retrieved from: <http://reports.weforum.org/global-information-technology-report-2015/>
- Whitebread, D. (2012). *The Importance of Play. A Report on the Value of Children's Play with a Series of Policy Recommendations*. Toy Industries of Europe (TIE): Brussels.