SIENNA feedback to

**The Committee on the Rights of the Child:
draft General Comment No. 25
on children's rights in relation to the digital environment**

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The SIENNA project welcomes this opportunity to share its research and feedback to the Committee on the Rights of the Child (the Committee) on the draft General Comment on children's rights in relation to the digital environment. SIENNA (Stakeholder-Informed Ethics for New technologies with high socio-ecoNomic and human rights impAct) is looking into ethical, legal and human rights issues and is developing ethical guidelines for human genomics, human enhancement and AI & robotics. It has received funding under the European Union's H2020 research and innovation programme under grant agreement No 741716.

The draft General Comment includes a number of issues directly related to SIENNA's work, specifically in regard to the right to privacy and right to education. However, there are many critical concerns not sufficiently addressed, including the impacts related to artificial intelligence and digital inequality. The draft focuses primarily on interactions in a 'traditional' online environment, failing to discuss the way the entire ecosystem of digital technologies impacts children and children's rights. Therefore, we strongly recommend that the Committee **broaden the understanding of the 'digital environment' and consider the impacts – direct and indirect, current and future - of all digital technologies on children**. A 'digital environment' suggests something that children can choose to engage in and implies that there are specific physical places children go to be in that environment (e.g. para. 27: "in settings where children access the digital environment, including pre-schools, schools, cybercafés, youth centres, alternative care settings and institutions where children live"). In fact, the 'digital environment' is everywhere, and impacts children whether or not they are actively 'engaged.' Furthermore, key decisions about their lives are increasingly made with and through the use of digital technologies, in ways both known and unknown to children and their families. The General Comment should reflect and address this reality.

Additionally, we recommend that the Committee **adopt a clearer position on 'red lines' or limitations in the deployment and use of digital technologies that negatively impact children**. Only one instance of a potential red line is mentioned, but more should be identified. We believe that greater prudence on the part of governments and organisations is needed. There still is a lot of uncertainty with regard to the impact of digital technologies on children, and governments should recognize and take that into account when creating and implementing policies and laws.

In order to address some of the uncertainty regarding impacts on children, the General Comment should **call for more research and impact assessments of the short-, medium-, and long-term impacts of digital technologies on children.** When digital technologies impact children, we should be asking ourselves whether it is necessary use of a technology; part of this is ensuring that digital technologies provide the best available service, not the easiest or cheapest. A comprehensive costs/benefits assessment should include the impacts on children, communities, and the environment.

Artificial Intelligence

The General Comment should **explicitly state that artificial intelligence (AI) must be developed, deployed, and used in a way that does not violate (or enable violation) of children's human rights**. As children are increasingly exposed to AI and robotic devices for, among many other applications, play, information, communication, education and therapy, there are significant direct and indirect impacts on children's rights. AI is already affecting children's cognitive, psychological and social development, and we do not yet understand the long-term impacts that AI will have on children's decision-making capacities, free will, intellectual development, socialisation, and understanding of what it means to be human.

One primary issue is how decision-making is being taken away from human beings and transferred to machines. This is immediately concerning when those decisions relate to basic human needs and personal liberty (e.g AI-enabled telemedicine, automated decision-making for sentencing and bail). Even the most innocuous applications (e.g. recommendations on entertainment websites) may have long-term impacts (e.g. erosion effect on children's' critical reasoning skills). The Committee should acknowledge this risk more clearly to avoid bringing about a world for children in which important decisions are hidden in 'black boxes.' Measures to mitigate this risk include keeping humans in the loop and making sure that they are sufficiently trained to adequately deal with these new technologies to keep them under human control.

Additionally, studies show that children are trusting towards AI programs and robots, tending to believe what they say, having their opinions influenced, and giving in to social pressure exerted by these devices. Having AI programs and robots as trusted sources, friends and role models means that such devices may transfer values, beliefs and viewpoints to children. This introduces a serious risk of misuse, as well as harm because of erroneous performance by the device.

Another concern is that children might mistake conversational AI programs and robots to be friends, rather than pets or artefacts, and invest more in the relationship with them than in those with fellow children. Besides the loss of social interaction with human beings, there is also the worry that such a situation could threaten the development of empathy and other valuable social skills. Psychologist Sherry Turkle has argued that intelligent devices that present themselves as friends and objects worthy of empathy are deceitful and foster inauthentic empathy that does not involve the complexity and nuance involved in deep personal relationships. Yet another worry is that AI and robots may in the future partially replace parents in the parenting role and drive a wedge between parents/guardians and children. The development of friendship bonds between robots and children represents a particular challenge in cases where studies are few or where there are inherent uncertainties. It is important therefore that research and technologies developed in these areas strike a balance between opportunities and risks. The General Comment must note this, along with the isolating effects of digital technologies, that might cause further risks to life and well-being of children.

In addition to the impacts on child development, there are many other AI-use cases that directly impact children's rights that should be addressed in this General Comment. Such use cases include:

- **Facial recognition** (child-specific applications include: AI surveillance systems in schools for security purposes; law enforcement databases for identification of child abuse victims; and databases for multi-purpose face-tracking such as PimEyes).
- **AI-enabled toys** (potential impacts include behaviour conformity to robot behaviour, and privacy and data protection violations).
- **Emotion-detection technology** (including potential use by parents and guardians).
- **Surveillance technologies** in private and public spaces (e.g. AI-powered thermal image processing in schools during a pandemic).
- **AI-powered assessment tools** that influence or dictate children's education curriculum and opportunities, and possible career prospective (e.g. Ofqual's grading algorithm for the A-levels in the UK that was found to advantage students from privileged schools and disadvantage students from unprivileged schools).
- **Deepfakes and digital altered information** (One particular application with severe impacts involves the use of a child's image in pornographic material. Potential impacts include emotional and psychological harm, violation of privacy, interference with learning and access to information, and creation of false memories).

As part of discussing actual and potential use cases, the General Comment must clearly outline acceptable and unacceptable uses (e.g. establishing a red-line for emotion-detention technology used on children).

Digital Inequality

The General Comment should **address the risks associated with the growing digital divide and inequalities** between children who have fuller access to digital technologies, and those with limited or no access. We are concerned that this document does not go far enough to protect the most vulnerable children in the world. We risk making privileged children even more privileged and disadvantaged children even more disadvantaged, as we already know that the harmful impacts of digital technologies disproportionately impact the most vulnerable part of the population.

In addressing digital inequality, the General Comment should **include discussion of impacts and human rights violations in contexts where access to the digital environment is more limited**, such as in countries in the Global South where access to digital tools is more difficult. The General Comment should also **address ways that children's rights are violated because of digital technologies, even when children are not 'engaged' online.** For example, this draft fails to adequately take into account children's rights violations that occur in the supply-chain of digital technology devices and hardware, such as:

- **Child labour in mining and processing of raw materials** (and related violations of the rights to education, health, development, life, etc.).
- **Labour violations and poor living conditions of families working in the processing and production of hardware and devices** (impeding realisation of a child's rights; the health and well-being of pregnant and nursing mothers being particularly important).
- **Child labour in processing of e-waste** (and related violations).
- **Exposure to e-waste** (as children are more risk for developing health problems related to exposure to toxic materials).

Right to Privacy

As one of SIENNA's main concerns is privacy and data protection, we welcome the specific discussion on the right to privacy (Article 16).

The General Comment should **insist that data collection and research related to children comply with ethical principles in addition to legal compliance**. Children are a particularly vulnerable group with regards to digital technologies, simultaneously they are a high target group and lucrative market. The General comment should also **stress that in all cases of digital surveillance of children, impact assessments should be carried out prior to deployment and the assessments should be published**.

Intelligent devices typically collect vast amounts of information from their user in order to be able to interact successfully with them. This is especially a concern with internet-connected devices that are used in play, health and educational settings. With the advent of the 'Internet of Toys', in which children could be monitored, profiled and influenced by targeted advertising via 'smart toys', effective protection of children's rights – of privacy, but also freedom of thought and opinion – requires far more decisive guidance. The General comment could include a general prohibition of behavioural marketing targeting children and profiling children for marketing purposes. The EU Article 29 Data Protection Working Party has already made similar recommendations, specifying that "data controllers should not process children's data for behavioural advertising purposes, neither directly nor indirectly, since this will be outside of the scope of the child's understanding and therefore exceed the boundaries of lawful processing" (The WP29 Opinion 02/2013 on apps on smart devices, p. 26) and that "Because children represent a more vulnerable group of society, organisations should, in general, refrain from profiling them for marketing purposes" (The WP29 Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679, p. 29).

Additional Recommendations

The following are recommended for inclusion in the General Comment:

- Stress the need for States to invest in research and development that supports addressing of ethical and societal issues and impacts of the digital environment.
- Highlight the need for civil society and NGOs (especially children's rights organisations) to be duly consulted in impact assessments.
- Call for use of ethics-by-design in the development, deployment and use of digital technologies.
- Discuss more how AI might exacerbate discrimination and call on States to take stronger action in this regard.
- Provide more concrete guidance on 'the best interest of the child' in relation to digital technologies (for example, through discussion of specific use cases).
- Increase the visibility of the 'school' and role of teachers.
- Call for the development and implementation of monitoring and compliance processes to verify that industry codes and terms of service are independently assessed and/or certified fit for purpose.
- Provide more detail on the need for a high standard of cybersecurity.
- Explicitly state that a child should not be discriminated against because of inability or unwillingness to participate in the digital environment and/or to use a particular digital technology application. Children and their parents/guardians should have the right to

determine a child's level of engagement with digital technologies. A child should never be prevented from or face an unreasonable delay in accessing basics goods and services because they are not using a specific digital technology.

For further information, please see SIENNA's work on the ethical and human rights impacts of AI and robotics:

- SIENNA D4.1: State-of-the-art Review: Artificial Intelligence and robotics (2019). https://doi.org/10.5281/zenodo.4066571
- SIENNA D4.4: Ethical Analysis of AI and Robotics Technologies (2020). https://doi.org/10.5281/zenodo.4068083
- SIENNA D5.6: Recommendations for the enhancement of the existing legal frameworks for genomics, human enhancement, and AI and robotics (2020). https://doi.org/10.5281/zenodo.4121082