

WORKSHOP REPORT

# AI and child rights policy

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Workshop Towards Global Guidance on AI and Child Rights  
26 – 27 June 2019 | UNICEF, New York, NY USA | #ai4children  
Office of Global Insight and Policy

# Background

Over the past few years the world has seen a dramatic increase in the development of artificial intelligence (AI) systems<sup>1</sup> that are expected to profoundly influence life and work in the 21<sup>st</sup> century. Both hopes and concerns abound on the impact of these systems on human development. National strategies and ethical guidelines — released by government-, non-profit-, and private sector organizations — seek to maximize the benefits of AI systems in ways that respect human rights and values. However, in general, these documents dedicate very little attention to children and the impact of AI on them. The rights of children, as current users of AI-enabled systems and the future inhabitants of a more AI-saturated world, must be a critical consideration in AI development.

How do we ensure that AI strategies, policies and ethical guidelines protect and uphold child rights? To begin to answer this question, UNICEF hosted a workshop at its New York headquarters to inform the development of AI policy guidance aimed at governments, corporations and UN agencies. The event was attended by over 60 experts, including representatives from the governments of Finland, Sierra Leone and the United Arab Emirates. The group spent one-and-a-half days exploring existing AI principles and what they mean for child rights, brainstorming how to implement these principles, and generating strategies for effective engagement of all the relevant stakeholders to make child-sensitive AI a reality.

The workshop marked the start of a two-year initiative to explore approaches to protecting and upholding child rights ways in an evolving AI world. For this initiative, UNICEF is partnering with the Government of Finland and the IEEE Standards Association, and collaborating with the Berkman Klein Centre for Internet & Society, the World Economic Forum and other organizations that form part of [Generation AI](#).

## DRAFT PRINCIPLES FOR AN AI AND CHILD RIGHTS POLICY

Participants discussed UNICEF's draft principles that AI systems should be based on for children. Our aim was to garner reaction to the principles and suggestions for how to improve them. They are:

1. Uphold child rights
2. Prioritize children's development and well-being
3. Protect and nurture children's data agency
4. Ensure transparency, explainability and accountability for children
5. Prioritize safety, protection and AI literacy of children
6. Prioritize equity and inclusion of children

UNICEF welcomes [continued feedback](#) on the principles.

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<sup>1</sup> At the workshop we used a definition from the [OECD](#): “An AI system is a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy.”



## AI and children: The state of play

Children are already using digital tools that utilize AI systems; from social media face filters, and content recommenders to language translation apps. At the workshop, researcher Elif Sert shared a case study on how smart toys impact child rights, taken from a [recent report](#) by the Human Rights Center at UC Berkeley and UNICEF. The case study highlighted that with the growing prevalence of internet-connected toys that collect voice recordings from children, questions have been raised about children’s privacy versus their protection and whether a toy company has a duty to report if it obtains data implying that a child is being abused.

Michael Karimian, (Human Rights Manager, Microsoft) noted that technology companies are now being forced to take on much greater responsibilities, such as considering how facial recognition software might infringe on the right to assembly in certain countries. This highlighted the indirect social impact of AI systems and the affect this might have on children.

“AI is being developed by adults and we need it makes sure that these adults think about children’s needs”

— Ecem Yilmazhaliloğlu, Technoladies

Without a child-centered foundation to AI development, children’s rights to learn, play and participate freely are at risk. Yet, as Brent Barron, (Director of Public Policy, CIFAR) explained from his [review](#) of 18 national AI strategies and policies, there is currently little focus on the issue of inclusion. Building on CIFAR’s work, UNICEF is conducting a review of published national AI documents to better understand what is — and is not — being said about children. Steven Vosloo (Policy Specialist, UNICEF) shared [initial findings](#) in the form of a heatmap (see below), which indicates the level of emphasis each AI strategy places on issues which most impact children. The data implies that many governments are considering youth as a future workforce in the context of AI, but very few are specifically addressing children’s unique rights in a rapidly changing world. More importantly, the review reveals that remarkably little is being said about children in national strategies. In comparison, in most national strategies topics such as industrialization, national security, and economic growth receive comprehensive discussion.

<b>Table 01</b>		<b>Attention to children’s issues across national AI strategies</b>		
	<b>Cultivating children as a future workforce</b>	<b>Preparing children to exist in a changing world</b>	<b>Protecting children’s data, privacy &amp; rights</b>	<b>Bettering quality of life/services for children</b>
AUSTRALIA				
CHINA				
CZECH REPUBLIC				
DENMARK				
FINLAND				
FRANCE				
GERMANY				
ITALY				
INDIA				
JAPAN				
MALTA				
NETHERLANDS				
POLAND				
SOUTH KOREA				
SPAIN				
SWEDEN				
UNITED KINGDOM				
UNITED STATES				



In addition to a review of government policies, UNICEF reviewed 17 ethical frameworks that have been produced by intergovernmental and non-profit organizations, as well as companies. This review again reveals that little is said about children. Some of the documents do present ethics within a broader human rights framework — which is encouraging and provides a foundation to build on — but more needs to be done to unpack what ethics mean for child rights specifically.

There are both gaps and opportunities to put child rights at the heart of AI policies and systems development. Given the rapid pace of technological change, this window of opportunity will not be open long. When it comes to ensuring AI works for children, time is of the essence.

[WATCH THE WORKSHOP VIDEO](#)



**Henrietta H. Fore** [@unicefchief](#)

How can we harness artificial intelligence to promote and protect the rights of children around the world?

Watch to find out what happened when we gathered 60 experts and 40 organizations to answer this question. [#ai4children](#)

**Ecem Yilmazhaliloğlu**  
17 years old  
Founder Technoladies, Turkey

AI is a new and promising technology

0:42 1K views

3:20 PM · Jul 10, 2019 · [Twitter Media Studio](#)

# Four priorities

From the presentations, breakout sessions, heated discussions and debates during the workshop, four key priorities emerged:

## 1. FROM PRINCIPLES AND POLICIES TO PRACTICE

To date, most ethical guidelines regarding AI systems have focused on defining principles to harness the potential of AI for development and to minimize the risks. Many national policies are founded on, or make reference to, such principles. A key message echoed at the workshop was the need to move beyond principles to practice, since applying principles in the real world often demands difficult choices. But how can this shift be achieved? The following three activity areas were proposed:

### 1.1. Before implementation, first embed child rights into principles and policies

A key first step in applying principles is to ensure that they fully reflect child rights. The lack of discussion of children's issues in AI frameworks reveals a gap that needs to be addressed. Luckily, however, there is no need to start from scratch. OECD Senior Policy Analyst, Elettra Ronchi, provided an overview of her organization's recently released [Principles on Artificial Intelligence](#), which "promote AI that is innovative and trustworthy and that respects human rights and democratic values." The fact that such principles are meant to be "human-centered" is a useful starting point towards a child lens for AI governance. Around the world, AI strategies and guidelines increasingly tend to advocate for a core set of principles, such as explainability, transparency and accountability. These concepts are likely to carry different meanings when applied to children and may change across various demographics of children and contextual applications of AI. For example, how should AI be explained to children, parents, and teachers? How much does knowledge and understanding of AI matter in cases where the child has no agency to opt out of an AI system?

Similarly, AI related policies must also uphold child rights. Further, since policies are implemented by many actors in an AI ecosystem, the rights of children should be considered throughout the AI value chain. For government policies, this means considering child rights at the many intersections of policy and technology, such as AI systems, drones and data policies. For corporate policies, this means putting child rights above profits as a driving principle for a company and its suppliers.



“The Convention on the Rights of the Child applies to the digital world, therefore, when AI interacts with children and young people. AI systems, must now and in anticipation of the future, be researched, designed, developed, implemented and used to respect, promote and fulfill child’s rights as a part of child-centered design.”

— Baroness Beeban Kidron, 5Rights Foundation

## 1.2. Capacity building in the AI ecosystem

There is a need to educate a range of stakeholders in the AI ecosystem on child rights. Attention should be paid to developing training materials, ensuring effective delivery, offering continued support, and providing adequate funding for capacity building.

**Children, parents/caregivers and teachers** should have a basic understanding of AI systems and how they affect people. A major challenge highlighted in the workshop was lack of knowledge and information among the users of AI systems about their own rights, and the implications of using AI-enabled services for themselves and/or for the children around them. People need to be taught how to be conscious users of technology.

Various strategies to educate the direct users and affected communities of AI were discussed, ranging from AI literacy courses provided in schools or in out-of-school programmes (as shared by colleagues from AI-4-All), to partnerships with popular television shows, and campaigns by social media influencers or faith-based organizations to build awareness of AI issues. Some populations are hard-to-reach through conventional channels, for example, those living in rural areas. Engaging with the local officials and community figures of those populations can spark creative communication tactics. Potentially skeptical communities are more likely to receive educational campaigns that utilize existing networks and social structures.

In the same vein, **policymakers** need to be educated on essential AI issues. Challenges highlighted at the workshop were insufficient understanding of the benefits of AI among policymakers, and weak institutional capacity — especially in developing countries — to appropriately leverage AI systems for improved governance and service delivery to children and parents.

What is the first word that comes to mind when thinking about AI and children?



**Malavika Jayaram**  
Digital Asia Hub

“OMG”



**Jasmina Byrne**  
UNICEF

“Future”



**Ecem Yilmazhaliloğlu**  
Technoladies

“Diversity”



**Ambassador Jarmo Sareva**  
Government of Finland

“Vulnerability”



**Kumba Musa**  
Government of Sierra Leone

“Development”



**Alexandre Barbosa**  
Cetic.br

“Privacy”



**Sandra Cortesi**  
Harvard University

“Inclusion?”



**Meeri Haataja**  
Saidot

“Future”



**Baroness Beeban Kidron**  
5Rights Foundation

“Robots!”

Further, AI development often happens on global platforms, yet regulations and policies are set nationally. There is thus a need to develop a set of global principles and provide support to national stakeholders to locally implement and regulate them. There is also the need for sector specific application of the principles. For example, within education, governments can think of school-level regulations for data protection as opposed to a national-level one-size-fits-all policy.

In the corporate sector, **policy leads, executives, software engineers and data scientists** were identified as key actors to reach. It was felt there is a lack of transparency, accountability and remedy mechanisms among businesses to deploy AI in a way where both agency is offered, and privacy is respected for any user, especially a child. Within companies, the full range of actors need to be trained on child rights and compliance with regulations. It was felt that we should aim for more than minimum compliance and rather inspire engineers and companies to develop child empowering AI systems. The dearth of AI talent, especially in developing countries, was also highlighted.

“Policymakers need to collaborate closely with technical researchers to investigate, prevent and mitigate potential malicious use of AI”

— Kumba Musa,  
Government of Sierra Leone

### 1.3. Establishing standards to help operationalize policies

Policies may outline the rules for what AI systems should or should not do, but how can these be rules then be implemented and upheld? Workshop participants identified that the use of standards can be used to operationalize policies. Alpesh Shah (Senior Director, IEEE Standards Association), presented a range of standards currently under development, including on child and student data governance, and towards an age appropriate digital services framework. By providing guidance on how to implement policies, the door is also opened for certification of child-friendly AI systems.

#### SMALL ASKS AND BIG OFFERS

A “small asks and offers” activity had participants ask for help in any AI-systems related area. The 22 distinct asks were met by 100 offers and 48 different ideas. Some of the common “ask” themes which emerged were getting help to pilot the AI policy guidance, leading youth engagement processes, and developing AI courses for policymakers and children.



## 2. CLEARER CONCEPTS AND MORE EVIDENCE

Discussion highlighted the need for greater clarity in AI-related terminology and, in turn, for greater evidence of the impacts of AI. Two main recommendations were identified in workshop discussion:

### 2.1. Clarify definitions and simplify regulatory frameworks

Many of the key AI concepts such as “transparency,” “fairness,” “consent,” “data minimization,” and “legitimate use” are lacking commonly agreed definitions. Workshop discussion revealed that even the definition and subsequent treatment of children on digital platforms varies and needs to be clarified. Danielle Benecke (Senior Associate, Baker & McKenzie) shared a review of national laws which revealed that none of the countries studied have reached a consensus on how AI should be defined across their legal systems.

Instead of regulatory order regarding AI systems, there appears to be a web of related and half-related laws and policies. This, and the lack of a common language, presents a major challenge for engaging in the AI policy space. To increase the odds that any AI policies and guidelines are to be implemented, Benecke recommended that, where possible, they should build on existing legal frameworks, rather than adding new compliance exercises that may quickly become outdated and add to “compliance fatigue”. Existing consumer and data protection laws can be updated, rather than replaced, to reflect AI demands. Interpreting existing regulations for AI scenarios is thus the task at hand.

Moreover, any “hard laws” that governments establish or update to regulate AI products and services should, where applicable, be accompanied by “soft laws” to encourage stakeholders to be thorough and conscientious in embedding human rights in the design of technology. An example of an existing soft law is ethical standards for research, which are applied by ethical review boards.

Accountability goes hand-in-hand with regulatory compliance and this raises many questions. Workshop participants queried whether an FDA-style approval process should be required for AI system deployments. While it will take time to work through questions like this, the overall message on definitions and regulations was clear: clarify, simplify and rationalize.

### 2.2. Prioritize research and knowledge sharing

Policies and guidelines, and how they are implemented, must be informed by evidence. Yet, even as AI systems increasingly influence modern life, there is little understanding of the impact of AI systems on child rights, child development and well-being. There is a need for more research and evaluations in this space. One idea floated at the workshop was to launch an initiative like CERN (the European Organization for Nuclear research) to get national governments, the private sector, and other stakeholders to contribute to a global research agenda. Another idea was to initiate a 20-year longitudinal study on the impact of AI on a group of children. A key principle identified was that any research must be based on child participation wherever possible.

Participants agreed that research and findings from applying principles in practice should be shared as widely as possible to help us all make sense of emergent AI issues. Such knowledge sharing could be in the form of case studies, lessons learned and policy briefs, which might inform impact assessments when planning and deploying AI systems.



WORKING GROUP DISCUSSIONS AT THE  
UNICEF #AI4CHILDREN WORKSHOP

### 3. CHILDREN’S AGENCY AND DATA

Data is at the heart of AI systems and the collection, analysis and storage of data raises questions about agency, privacy, safety and control. In relation to children, two main issues regarding data came to the fore in discussions:

#### 3.1. An evolving sense of children’s agency

The Convention on the Rights of the Child (CRC) states that “children have the freedom to seek, receive and impart information and ideas of all kinds through any media of their choice.” Therein lies an immense amount of agency for a child. The CRC also talks about the “evolving capacities of the child,” which change as a child matures. A key theme at the workshop was the need to acknowledge this evolving sense of agency and how that impacts children’s digital lives.

In the digital age, this evolution demands a re-assessment of how different rights and principles are interpreted. Regarding consent, for example, at what point should parents stop consenting to certain data uses on behalf of their child? Who owns data collected about a child, especially in cases when the data is not produced by the child (for example, demographic data about a child inferred by AI systems from the child’s online behavior)? While these questions are not limited to AI, the centrality of data to the development and use of AI systems makes the issue particularly pressing here. The principle of transparency presents another dilemma vis-a-viz agency: Is it acceptable to use AI systems with children in cases where the child cannot understand that they are dealing with a computer, rather than a person?

Where is the line between acceptable commercial practices and manipulation for excessive engagement, especially for children who may lack a critical mindset when using digital platforms?

One of the biggest challenges recognized at the workshop was how best to balance child agency with protection and privacy. Workshop participants agreed that it is good in principle to provide children, or their parents or caregivers, with greater control of their data. This approach is in line with the core perspective of the workshop: when it comes to AI systems, children should not only be seen as passive consumers who need protection, but active users who should participate in the shaping of AI policies and usage.

### 3.2. Data protection

While different stakeholders encourage the empowerment of children through AI systems, it remains critical to treat their data with the greatest care. A number of principles were raised here, including minimal data collection and data anonymization. Workshop participants highlighted that digital platform providers should, by default, only collect the minimum amount of data required to provide a service. Data anonymization is one way — although not 100% foolproof — to help protect the privacy of users and should also be a default when analyzing big data by AI systems. Data collection and anonymization rely on greater transparency on the side of data collectors and participants agreed that the burden should be put on them to explain what data is collected and for what purpose. Ultimately it is up to digital providers to ensure the safe and responsible storage and sharing of data. The question remains, however, of what policies and technical processes need to be put in place to ensure responsible action by digital providers that can, in turn, build users' trust. Overall, attendees of the workshop agreed that there needs to be a greater focus on data protection and control in policies on AI systems.

### ELEPHANTS IN THE ROOM

We identified three major issues around AI and child rights:

1. The lack of regulations and penalties for undermining child rights.
2. How to “future proof” regulations for fast-changing technologies.
3. Shareholder-centered business models that prioritize profit over people and the planet.

## 4. BROAD STAKEHOLDER ENGAGEMENT

The AI discourse makes calls for broad stakeholder engagement and diversity. The workshop focused on the following implications of engagement for children:

### 4.1. Engagement of children and youth

Article 12 of the CRC states that children have a right to be heard in matters that concern them. Efforts to include youth voices must be integral to any AI policymaking process. It is also crucial to include the advocates of the most underrepresented, such as girls and those living in rural areas, as these groups may be the least likely to have the time and resources to engage directly with policymaking around emerging

technologies and initiatives. Engaging young people on a complex topic like AI systems is not easy but is possible. Amy Malen (Allegheny County Department of Human Services, State of Pennsylvania) explained how, in the design of an AI-enabled family screening tool, her department invested in broad community engagement. This included engaging youth and family advocates, mothers, fathers, and grandparents to explain, as best as possible, the risks and opportunities of the proposed system and hear/air the concerns of the community. UNICEF is planning to engage youth in the development of the AI policy guidance, and potential sites for consultation were discussed at the workshop.

Broadly speaking, there is a role for organizations that work with children to facilitate engagement between them and policymakers and industry. The challenge is to present AI to children not in technical terms, but in ways relatable to young users, and then to translate children’s concerns, hopes and inputs into tangible policy and AI systems outputs. Sharing methodologies and lessons learned on youth engagement will help the entire field do this more, and better.

**4.2. Diversity for children**

When designing, developing, deploying and using AI systems, we know that a diversity of perspectives is needed. John Havens (Director, IEEE Global Initiative on Ethics of Autonomous & Intelligent Systems) noted: *“You can’t have a standard on facial recognition technology and not have in the room data scientists, psychologists, anthropologists, and people from around the world.”* Participants acknowledged the need to think about who to include when creating AI systems for children, such as pediatricians, educational specialists, and child psychologists.

Virginia Dignum (Professor, University of Umea, and member of the European Commission High-Level Expert Group on AI) reminded the workshop that diversity is more than just ensuring a conference panel is gender balanced. There is also a need to ensure cultural, age-based and geographic diversity and their intersects. When thinking about the impact of AI systems, there is a need to develop use cases in different settings and with diverse users. Children can help to develop the appropriate use cases for them.



# Next steps

The productive and lively workshop highlighted many big challenges to ensuring that AI systems fulfil, and don't undermine, child rights. In many instances there is awareness of what should be done — for example, increasing data protection and AI transparency — but lots of questions remain around how to achieve these goals. However, the event revealed the enthusiasm and commitment of experts to the goal of protecting and empowering children through AI systems. To move this commitment forward, UNICEF will now:



**Set up a core expert group** for the project to lead on different aspects of the policy guidance.



**Convene regional consultations, including with children**, for diverse input into the policy guidance.



**Finalize draft policy guidance.**



**Co-host AI and Child Rights High-level Forum** with Government of Finland in Q2 of 2020, to launch draft guidance.



**Identify countries and companies** to pilot policy guidance.

If you are interested in getting involved in this project, please contact Steven Vosloo at [svosloo@unicef.org](mailto:svosloo@unicef.org). To learn more about the workshop, the participants and download presentations, please click to the event webpage below.

VISIT THE WORKSHOP WEBPAGE

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