

AN APPROACH TO ADDRESSING CHILDRENS RIGHTS IN AN ARTIFICIAL INTELLIGENCE DOMINATED SOCIETY

Amali De Silva-Mitchell
Street Futurist Academic, Sri Lanka & United Kingdom

Does society require all its children for the sustainable development of the planet? An unforgiving question to ask, but an increasingly real question perhaps, from parties engaged in the pursuit of pure financial profit. The issue of the need for human existence in itself, in the future, will be defined, in a battle for resources and power, like no other we have seen before. It is going to impact the social norms of the future. An area under current, critical observation, is artificial intelligence (AI) and the internet of things (IoT) dominated work place order. What are the Rights of the Child in a society dominated by AI and IoT? Will children get the education and support to compete against robots for a job in the workplace? What are the responsibilities of the curators of such an emerging AI society? To uphold the intent of the United Nations Convention on the Rights of the Child in a sustainable future, a methodical, granular approach to AI impact risk analysis, by age group, culture, income, and special circumstances must be put in place early, globally, for good policy making for a fair AI dominated international society.

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In 2002 one night on the Pacific Coast of North America and early morning in European Civil Society, a group debated quickly within a manner of hours to attempt to include the Rights of the Child on the Internet within the Civil Society document statement for the first stage of the United Nations World Summit on the Information Society (WSIS). Children had been specifically forgotten in the discussions that were dominated by the youth group who took on an umbrella representation, for all those persons under the age of 29. It seemed to the public eye, that Governments to that point, had not made an explicit statement of support with regards to the Rights of the Child (ROTC) on the internet, although subsequently, openly supported by the Canadian delegation.

The United Nations International Children's Emergency Fund (UNICEF) was absent from WSIS preparatory conference number one. Children did not seem to stand alone as a distinct group in society, as for instance the elderly at the other end of the age spectrum. Children's needs were just being bundled together with the young adults, just short of forgotten, a foot note, part of the adult group of interest, with no specific rights or concessions. We must not make that mistake again. We must not review the impacts on the

ROTC late, for the promise made to the world's children must be kept. The issues of the impacts of AI on children are an emerging but definitely critical area of concern and must be dealt with, with the utmost of urgency. If not dealt with in a timely manner, some jurisdictions may become visible for emergency treatments of societal intervention to normalize the situation, which could have been avoided with planned treatments. AI is and will, impact further, the lives of children and their families.

“The United Nations set a common standard on human rights with the adoption of the Universal Declaration of Human Rights in 1948. Although this Declaration is not part of binding international law, its acceptance by all countries around the world gives great moral weight to the fundamental principle that all human beings, rich and poor, strong and weak, male and female, of all races and religions, are to be treated equally and with respect. Human rights apply to all age groups; children have the same general human rights as adults. In 1989, however, world leaders decided that children needed a special convention just for them because people under 18 years old often need special care and protection that adults do not. The leaders also wanted to make sure that the world recognized that children have human rights

too. The Convention on the Rights of the Child (CRC) is the first legally binding international instrument to incorporate the full range of human rights including civil, cultural, economic, political and social rights. The Convention on the Rights of the Child sets out the rights that must be realized for children to develop their full potential, free from hunger and want, neglect and abuse. It reflects a new vision of the child. Children are neither the property of their parents nor are they helpless objects of charity. They are human beings and are the subject of their own rights. The Convention offers a vision of the child as an individual and as a member of a family and community, with rights and responsibilities appropriate to his or her age and stage of development. By recognizing children's rights in this way, the Convention firmly sets the focus on the whole child.” *A collection of relevant references from the UNICEF website September 2017.*

The benefits of AI can be readily seen in education, entertainment, health and child protection services. These social services will be revolutionized by the quality, quantity, breadth, depth, efficiency, speed, granularity and sophistication of services for children, families, educators and guardians. Globally these AI applications easily gain popularity. AI can present itself as a robot, as an application on line etc. AI can take many forms.

However, there is also the so called “dark side” or non-beneficial aspects of AI or its consequences which are debated extensively in the media. There are issues and risks of AI applications themselves, their development, cost, and delivery of product or service to children. Although a number of children’s issues are of common concern to all age groups experiencing the dawn of the AI Society and its emergent risks and issues, a few matters for consideration, specifically for children are:

- Child under the complete control of the AI application; in essence children’s loss of right to freedoms.
- Child mental or physical abuse by an AI empowered robot.
- Close monitoring and recording of a child’s actions and behaviors, speech and thought by and AI application.

- False reporting of a child’s activities and behaviors so as to influence human actions taken with the child.
- Brain washing or directing learned behavior so as to modify natural child behavior or growth.
- Restricting access to information and activities e.g. parental controls are defined by the service provider, not free choice of parent.
- Creating bias and cultural profiling with data engagement activities.
- Enforcing cultural norms that are alien to the child.
- Poor privacy protection of personal data.
- Data lock out as much as data hacking.
- Child tracking.
- Unethical products and services and delivery.
- Income affordability restrictions.
- Poor user guidelines and user support.
- Poor warranties.
- Poor safety standards and premature roll-outs.
- Lack of algorithm transparency, standards and accountability (algorithm trust certifications).
- Lack of published data collection procedures.
- Poor jurisdictional data sharing.
- Poor data interpretations.
- Child not prepared to use product.
- Child/adult not advised of issues with product.
- Child/adult not advised of limitations of product or service.
- Poorly tested product harming children.
- Poor resolution of poor data results.
- Physically unstable toys and environments.
- Unsuitable play outcomes.
- Poor disposal guidelines and data history clearance procedures; e-waste issues.
- Child competes with robot for life who has increasing amounts of data collected against the child which the human mind is not capable of sorting, resulting in an unfair advantage for the robot.
- Real need for trust certification of products and services similar to an United States Food and Drug Administration (FDA) approvals, for each class of AI product at each age group. This certification process must not be onerous or costly so as to keep product development within access for all interested developers.

- Public experts monitoring of AI freeware for unethical practices and procedures.
- Development of suitable AI application protection software.
- Lost codes and coding.
- Child to computer interaction space. Safety of the child is paramount.
- Risks of children's mind reading applications.
- Using a child's data to form other intelligent business proprietary toys without consent.
- Child's intellectual property rights.
- Child profile storage issues, data mining.
- Non-compliance with children's right to be heard, the new complaint mechanism and freedom of expression initiated by UNICEF.
- Right to fair access, free from abuse.
- Sub-standard testing; product risk penalties, approvals and certifications.
- Legal documentation of algorithms, to allow for accountability, transparency and access to user and development partner information.
- Up to date application requirements or notifications for best practice interface connectivity of AI and IoT applications.
- Human to computer interaction best practice.
- International compliance and best practice codes of conduct for integrated AI/IoT applications across sectors and jurisdictions.

There are a number of children in special circumstances such as in child labor, child soldiers, disabled children etc. AI incorporation in to these situations must have their own set of policies, standards and performance measures so as to meet the ROTC vision.

All these issues highlight that accountable, ethical, knowledgeable, compassionate curators or policy and standard setters of an AI society are a requirement. Some of the AI frameworks that have to be set up so as to meet the policy and best practice guidance requirements for children in an AI society include:

- Political, good governance standards.
- Socio-economic standards, e.g. first job place right over robot.
- Income accessible products and services.
- Basic and essential service levels.
- Technological and information education so as to be able to compete with robots effectively and tools to enhance human work.
- Legal, professional standards and conduct.
- Accountability, integrity and timely complaint monitoring mechanisms.
- Timely and relevant data corrections and updates.
- Financial and social benefits.
- AI catch-up training for older children.
- Health and wellness issues e.g. exposure to screen lighting.
- Cultural integrators and public safety.
- Monitoring and risk management.
- Fairness and equity.
- Accountable guardianship for Public Trustee guardianship roles.
- Unethical programming techniques; regulation with perhaps penalties and best practice sets.

What will be the impact of AI on child labor? Children may be one of the largest losers of un-skilled or semi-skilled employment under a robotize /AI future work environment. Children tend to provide repetitive, low skilled work easily duplicated by a robot. Often these children are the sole bread winners for their families or for themselves only. There will be a significant impact within this segment of society in developing countries. Should the governments of these countries take an inventory of the children working in these jobs and administer a training tax on the employers, for children displaced from these jobs? Should the children be given the first right of the job activity, competing with the robot, to show the employer that the job can be performed just as fast and to the required standard, thus preserving the human job over the robot job? But this will only be a short-term solution even if implemented. Use of robots could move children from child workers to children without work in extreme child poverty. It is not to be underestimated that population growth coupled with robotics in the work place is going to create a very unstable social economic position for some countries.

Child soldiers, tend to populate non-conventional armed forces. Some of these forces are in conflict with government armed forces that for the future could use robots with artificial intelligence capabilities. It is possible that the children will be put on the front line to test the new and unknown robot applications of the

other party. Is this a simple case of combat or is it also a case of using human children to test new products? What will be the accountabilities in this situation? Will the party fighting a group whose infantry are child soldiers, fly the children a white flag, which they can use to cross the line, giving them the ability to make independent choices at whatever age? Robots the size of insects are being developed, will these be sent out to seek and identify children to receive the white flag? Well thought out compassionate policies must be made.

Displaced children due to famine, flood, drought, war etc. need to be treated just like any other child in that jurisdiction. Here AI applications could be very beneficial providing education and health care access at a nominal cost. However, the education material must be tailored to meet their specific needs and developments and requirements for their future lives.

Orphans and foster care children, can benefit greatly with access to educational needs, cultural orientation robots etc. However, the content and manner of delivery must be free from bias, be carefully produced and monitored. Children could be left to be led by robots or be in their exclusive care. A performance measure may see this as perfect care, but where would the human touch or contact for the children be with a responsible adult to provide guidance? Care must be taken with conflict management as well between robots and children. The choice of performance measures is critical.

Sick and disabled and special needs children are in a similar place with the prior mentioned group. Again, the robots must be monitored for inappropriate content, bullying, putting children at risk, being put in place prior to complete testing and data uploading or fully machine learned. The algorithms that are associated with these groups must be systematically audited for their upgraded programming codes, outcomes, inferences and content.

One parent families and latch-key kids, robots could be open to accepting nontraditional data feeds such as a perfect father model data input to give the child a feeling of comments from a two-parent family. However, the child must not be for instance brain washed to spite the other parent not living with them or trained to disrupt shared time of the other parent. In a family with two dominant traditions, the one that is not

regularly with the child could be played out by the robot for instance, by the robot teaching the absent parents native language to the child. The robot could potentially replace some childcare services, where for instance the child's room is monitored and if there is an issue a real human will be on the premises within 5 minutes and the robot goes in to a locked-out mode.

Robots can play a very useful role in education and cultural integration of culturally displaced, held back or kept down and new immigrant children. Care must be taken with stereotyping and brain washing of the children so that they don't lose their own identities.

A global phenomenon is street children and children in the sex trade. AI societies can make these children very vulnerable to manipulation from adults. However, AI can be extremely beneficial as well to provide these children with opportunities that were never accessible to them previously. On-line education and health services can be provided through access to libraries and personal internet and communication tools and technologies.

The street could also be safer with real-time position monitoring for public safety etc. The Vancouver Community Network, a non-profit organization in Canada has set up a system where those living on the street can find out where there is, for instance, a donation of food being made that day. The aim of AI should not be to only facilitate life on the street but AI could provide services such that as children and youth being housed in a warehouse manned by robots for the services such as cleaning and safety.

What has been mentioned so far are specific issues and specific risks for specific cohorts of children. There is however a single resounding issue that this paper believes to be of serious risk for children, and that is of AI applications emerging ability to mind read. These mind reading capabilities, are developing especially fast in applications for the disabled and now almost as capable as voice recognition control robots. These AI applications have the ability to impact on freedom of expression, privacy, and other human rights if left unregulated. This area must be strictly legislated and the monitoring must be with compassion to the human, ethical and wise. Legislation around mind reading by AI applications may perhaps be culturally specific, but minimum international standards must be maintained.

Another area of grave concern is the residual information or e-waste stored on products and within services that can impact that individual well past the childhood years in to adulthood, like a ghost especially with data mining. Recently the United Kingdom passed laws to alleviate this situation for children, which would be an example for other jurisdictions to consider.

To address carefully, at a policy level, each of the issues related to the impact of robotics and AI on children, this paper proposes breaking down the needs and risks associated with three primary age groups of children to age 18 years. This approach could be called a full life or even life cycle plug-in approach when it is with respect to a family that sees through an individual through the generations in its overall care. Here the life cycle is seen as birth to young adult. The three age groups proposed are as follows:

1. 0 to 6 years focus: learning awareness and gathering knowledge of human life. Simple educational robots that are compassionate
2. 7 to 13 years focus: learning to differentiate own mind thoughts from any other or machine. Complex robots that are computed to follow human rights and ethics and provide guidance for development
3. 14 to 18 years focus: development of own responsibility and identity. Sophisticated robots that machine learn and tailor service to the child in a complex manner and prepare the child for the future adult world.

Age 19 to 29 years are seen to be young adult or youth years which do not require special treatment from society other than for perhaps some compassion and understanding of mistakes made by that age group, especially by the courts and other authorities.

Some of the special issues associated with each of the age groups, not encountered by the other two age groups are groups are:

1. Health care requirements.
2. Educational and entertainment requirements.
3. Childcare or supervision requirements.
4. Child protection requirements.

5. Level of child service or product access trust regulation.
6. Cultural norms and legal expectations, laws, and responsibilities.
7. Types of freedoms from glass ceilings to the next age cohort or in to the workplace.
8. Acceptable freedom of expression, privacy and development of social behavior.
9. Human to computer or robotics interfaces.
10. Emotional interactions with robots and IoT.
11. Expectations of outcomes and preparations for the next stage of interaction.
12. International cross border collaboration.
13. Penalties, taxes, and other accountability measures including effective performance measurement tools.
14. Algorithmic leniency / risk allowances.
15. Content.

AI broad based child policy, will see children fall through the gaps and marginalized. With AI comes the need for fine granularity of child focused, holistic, policy making.

Development of AI within society can be beneficial as outlined during the sessions at the UN Conference AI for Good. However, if only profit seeking AI activities and approaches are pursued, it is possible that it could lead to a significant instability for society, due to increased unhappiness (*Reference: Richard Layard, London School of Economics and Political Science*) of mass society. A universal children's AI delivery plan is key to meeting the sustainable development goals (SDGs) of the UN. Governments should collectively monitor what the private sector and non-profit sector are developing and balance the economic inputs and outputs for societies good. It is possible that penalties, taxes, investments credits will be used to control the flow of specific AI sector development.

AI development for children must be guided by a universal social policy mandate that can be led by the International Telecommunications Union (ITU) with the United Nations Economic and Social Council (ECOSOC). Although UNICEF is a key partner in these matters, what AI does, is to integrate children, and the approach to their development in to the adult world at all times for the future. In today's world, children exist in a semi-autonomous world to adults, but in tomorrow's world if the child is not integrated in

to the adult sphere for all thematic decision making, there is a risk that children's needs will fall through the gaps or be addressed too late for effective outcomes to meet ROTC.

Children of the future will compete neck to neck with robots for some jobs. This has to be recognized, and be at the center of decision making. Children must have a direct voice through school forums leading to national forums of children who can attend the discussions and make contributions. This could perhaps, in the case of ITU discussions, be facilitated by the students United Nations conference societies interaction through the annual national or regional Internet Governance Forum (IGF) process. It is important the IGF have a special standing theme on the emerging issues for children within an AI society.

A great risk we have is that robots will replace the majority of human work on the planet. Careful maintenance of current population levels or reduction of the population are the most obvious real-time solutions, if we are not to face mass unemployment, poverty, starvation and human embarrassment and harassment; but this is not easily or perhaps even humanly attainable.

In conclusion, the single main theme of this article is to advocate taking careful steps in the development of children's AI policy, based on AI issues identification by the fine granularity of age group's issues. Nothing new in general, but new for an AI focused society's holistic development. The framework of analysis, should have full stake-holder participation, including that of children themselves, in the risk management and planning of outcomes for an AI Society. There is a need to mitigate any major upheavals to a safe and secure society, centered on the human and human needs for all. Just minimally acceptable, sustainable socio-economic service levels, is not sufficient the need has to be a focus on a human life with dignity.

An AI international treaty similar to the UN WSIS treaty is imperative as a partner to the existing suite of Information and Communication Technologies (ICT) and human rights treaties. The UN AI for Good Summit has embarked on such an activity. Embracing AI simply as a tool for SDGs is to risk the complex and unknown consequences of AI development in society which can potentially to false positive conclusions such

as the lack of need for children and hence humans in society. This would trend human civilization towards a predominantly robot only society similar to the society created for the elite in the movie Kingsman.

The interim stages of an AI society, poorly planned, will probably look like the phases of development of the industrial revolution in the west, with its mass migration of peoples to the Americas, hunger, poverty, poor environmental conditions and so forth, before the golden ages of life of the post war era of the 1950s and 1960s. In the industrial society, children were a labor resource, but with an AI Society they could easily be seen as a burden to society. In the movie Chitty Chitty Bang Bang (1964 novel by Ian Fleming), the village was all gay, but the children had to hide away when the Vulgaria's child catcher was on the prowl. The mythical Vulgaria, was a childless land. Movies and novels are the creations of dreamers and thinkers, that influence the dreams and aspirations of the public and perhaps foretell the future, but also give us the opportunity to plan for an AI for Good focused society.

