## Appendix A: Relevant Standards

These objectives can help guide the design and evaluation of technologies for early childhood education.

Early Childhood Considerations

National Head Start Association (https://www.nhsa.org/)

- 1. <u>Early</u>: How is this approach to early childhood informed by fetal development?
- 2. <u>Appropriate</u>: How is this approach developmentally, linguistically and culturally appropriate?
- 3. <u>Universal Access</u>: How is this approach inclusive of children with disabilities?
- 4. <u>Diversity</u>: How does this approach support an environment of acceptance and respect for gender, culture, language, ethnicity and family composition?
- 5. <u>Discipline</u>: How does this approach encourage self control by supporting clear, consistent limits, and having realistic expectations?
- 6. <u>Empathy</u>: How does this approach encourage respect for the feelings and rights of others?
- 7. <u>Order</u>: How does this approach include planning for routines and transitions so they occur in a timely, predictable and unrushed manner according to each child's needs?
- 8. <u>Creativity</u>: How does this approach ensure opportunities for creative self-expression through activities such as art, music, movement and dialogue?
- 9. <u>Stakeholders</u>: How does this approach foster and include the input of multiple early childhood stakeholders, including children, parents, and child care providers?

AI Ethics Considerations

<u>UNICEF's Memorandum on Artificial Intelligence and Child Rights</u> (http://bit.ly/Alrightsmemo)

How does this approach to early childhood education:

- 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

<u>EU's Requirements of Trustworthy AI</u> (http://bit.ly/EUAIreqs)

How does this approach to early childhood education support:

- 1. Human agency and oversight
- 2. Technical robustness and safety
- 3. Privacy and data governance

- 4. Transparency
- 5. Diversity, non-discrimination and fairness
- 6. Societal and environmental well-being
- 7. Accountability

## Ethical OS Toolkit's Eight Risk Zones (https://ethicalos.org/)

How does this approach to early childhood education consider:

- 1. Truth, Disinformation, and Propaganda
- 2. Addiction & the Dopamine Economy
- 3. Economic & Asset Inequalities
- 4. Machine Ethics & Algorithmic Biases
- 5. Surveillance State
- 6. Data Control & Monetization
- 7. Implicit Trust & User Understanding
- 8. Hateful & Criminal Actors