

Ayça Atabey Sonia Livingstone Toshie Takahashi July 9th, 2025

Al systems designed for children

To gain insights into how artificial intelligence systems and robotics can be designed with children's rights in mind, Ayça Atabey and Sonia Livingstone spoke to Waseda University's Professor Toshie Takahashi, as part of their work on AI and child rights at the Digital Futures for Children centre. Toshie has been researching AI since 2016, when she recognised the profound influence AI has on the lives of children and young people, and felt a strong need to examine this relationship from a cross-cultural perspective. She has launched two major international projects: "A Future with AI" (in collaboration with the UN) and "Project GenZAI" (as part of Japan's Moonshot R&D Program), focusing on global comparative research on AI and children and young people.

1. When you look at how AI systems and robots are designed for children, what do you think are the most crucial opportunities and risks?

All designed for children presents valuable opportunities, such as supporting their learning. However, it also poses risks like privacy violations and deepfakes. That is why human-centred design is essential. Instead of Al unilaterally influencing children, we must fosterinteractive relationships that empower children to actively shape their own futures.

2. At the Digital Futures for Children centre we often ask, "What does good look like in the digital world with and for children?" How would you describe what good looks like in the context of AI systems designed for children?

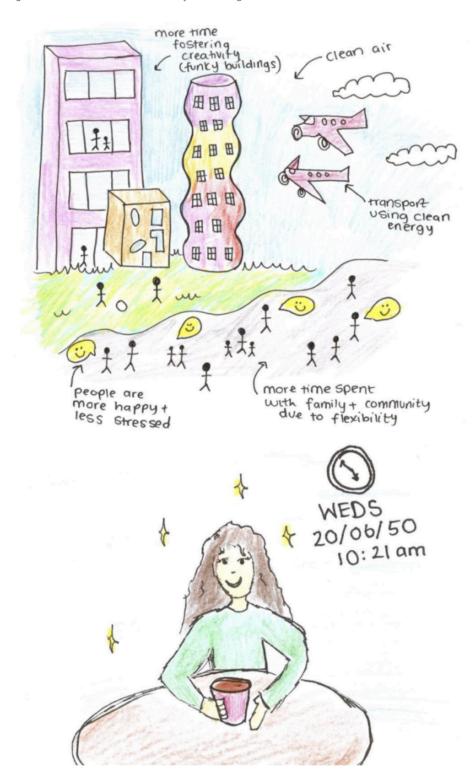
In this context, "good" could involve creating systems that enable children to engage safely and meaningfully with AI. AI should be designed to spark creativity and support children in realising their full potential.

3. Are there any good practice examples you can think of from Japan or elsewhere?

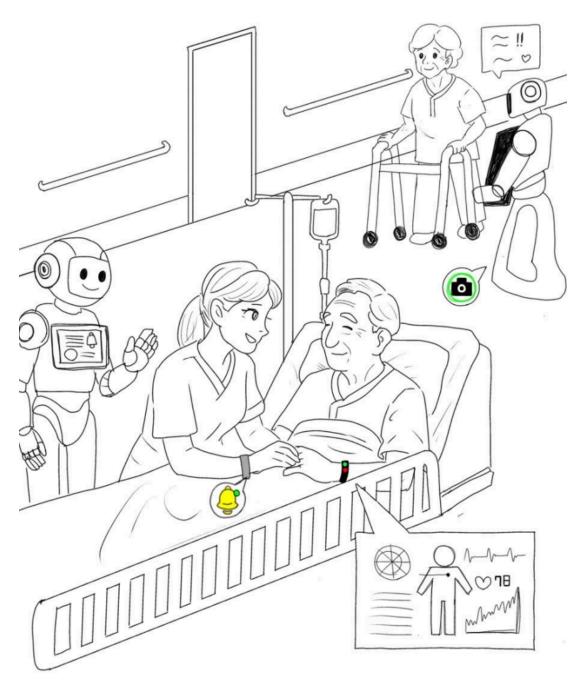
One initiative I would like to highlight is Japan's Moonshot R&D Program. In the project I'm involved with, we aim to develop AI-driven robots that "learn and act autonomously while coexisting with

humans." Together with robotics engineers, computer scientists, and neurosurgeons, I contribute from the perspective of the humanities and social sciences to the development of AIREC — a smart robot designed to stay with an individual throughout their life.

This project also led to our collaboration with partners in nine countries — including the US, UK, Italy, Spain, Estonia, Chile, China, Singapore, and Japan — as well as with leading institutions such as Stanford and Cambridge, on "Project GenZAI," a global comparative study on Generation Z and AI. Since 2021, Project GenZAI has conducted in-depth interviews with children and young people about their views on AI across these nine countries. As part of the interviews, participants are asked to draw their vision of an ideal society in 2050. These drawings reveal striking cross-cultural differences. For example, in Western societies such as the UK, young people often emphasize environmental issues and a sense of community. In contrast, in Japan, there is a stronger focus on healthcare and AI-driven robots designed to support people in an increasingly super-aged society.



Ideal society in 2050 designed by a female 24 year-old, UK



Ideal society in 2050 designed by a female 18 year-old, Japan

4. Are there any changes you would like to see in the AI ecosystem or from key stakeholders, such as governments, to achieve what good looks like?

To realise this vision, we must shift away from Al-first approaches, toward innovations that prioritise human well-being. All stakeholders — including businesses, governments, researchers, civil society, and youth — must work together based on human-centred values.

In "A Future with AI", our UN-based project, we proposed design principles informed by the voices of children and young people, emphasising cultural and age-sensitive approaches, accountability, and AI as a complementary support system. AI literacy, reskilling programs, and flexible regulatory frameworks (e.g., ethical AI certification marks) are also crucial.

5. How do you define "Human-Centred AI" or "Human-Centric AI" and can you tell us about the Japanese model?

Human-Centred AI is an approach that respects human dignity and diversity, aiming to enhance human capabilities and well-being. In Japan, there is a cultural tendency to view AI and robots as partners, which fosters a generally positive attitude toward their use as supportive tools in education and care.

6. Can you tell us where you see children and young people in HCAI discussions in different models?

Traditionally, HCAI models have not sufficiently reflected the perspectives of children and youth. But as AI becomes embedded in daily life, young people should be regarded as central agents in shaping our future. In our *A Future with AI* project, which involved youth from 36 countries, their role as co-designers was clearly emphasized. The youth participants collectively affirmed that AI is part of their future, and highlighted the importance of human–AI collaboration for equality and sustainability. While they expressed generally positive views, they also drew clear red lines — such as a firm rejection of autonomous lethal weapons — and called for international rules on AI design and use. Ultimately, they believe that humanity can manage the risks and achieve a successful and ethical coexistence with AI.

7. Which key learning would you like to share from your work that you think researchers should pay more attention to in today's increasingly GenAl-driven ecosystem and its impact on children's lives?

Since ChatGPT gained popularity in 2023, we have been conducting annual in-depth interviews on generative AI and its impact on children and young people. Overall, they are optimistic about its potential to enhance creativity, support learning, and generate new job opportunities. At the same time, they express concerns about misinformation and a potential decline in critical thinking skills, particularly among younger children. Rather than relying solely on regulation, they emphasize the importance of developing the literacy needed to understand and navigate AI effectively.

8. What should we have asked you that we have not?

When thinking about "children and AI," it's vital to see children not merely as recipients of the future, but as active creators of it. We need systems — in education, policy and technological development — that proactively incorporate the voices of children and youth.

Toshie Takahashi is Professor at Waseda University, Tokyo, and an Associate Fellow at the Leverhulme Centre for the Future of Intelligence (CFI), University of Cambridge. She has held visiting appointments at the University of Oxford, Harvard University, and Columbia University. Her cross-cultural, transdisciplinary research explores the social impact of robots and the potential of Al for Good. A frequent speaker at UN forums and global conferences, she is also the author of

Towards the Age of Digital Wisdom (Shinnyosha, 2016, in Japanese), which received first prize in the Telecommunication Social Science Awards. She holds a PhD from LSE and advises Japan's Ministry of Internal Affairs and Communications.

This post gives the views of the authors and not the position of the Media@LSE blog, nor of the London School of Economics and Political Science.

About the author

Ayça Atabey

Ayça Atabey is a Research Associate at Edinburgh University and a PhD Affiliate at the Edinburgh Futures Institute. She conducts interdisciplinary research at the intersection of IT Law and Human Computer Interaction. Her current research focuses on data protection law, child rights and operationalizing Responsible AI principles in education. Ayca received Alan Turing Institute's PhD Enrichment Award in 2023. She also works as a consultant at Digital Futures for Children, and an Evaluation Researcher focusing on Gender Equality, Data Governance and Human Rights at UN Women Europe and Central Asia.

Sonia Livingstone

Sonia Livingstone OBE is Professor of Social Psychology in the Department of Media and Communications at LSE. Taking a comparative, critical and contextual approach, her research examines how the changing conditions of mediation are reshaping everyday practices and possibilities for action. She has published twenty books on media audiences, media literacy and media regulation, with a particular focus on the opportunities and risks of digital media use in the everyday lives of children and young people.

Toshie Takahashi

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visiting appointments at the University of Oxford, Harvard University, and Columbia University. Her cross-cultural, transdisciplinary research explores the social impact of robots and the potential of AI for Good. A frequent speaker at UN forums and global conferences, she is also the author of Towards the Age of Digital Wisdom (Shinnyosha, 2016, in Japanese), which received first prize in the Telecommunication Social Science Awards. She holds a PhD from LSE and advises Japan's Ministry of Internal Affairs and Communications.

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