WELL-BEING BY DESIGN FELLOWSHIP 2025

CASE STUDY

The 2025 Well-Being by Design Fellows participated in a four-month professional development program for designers and producers of interactive kids' technology and media. They met online to workshop their current projects, network with other fellows, and gain insights from research and industry leaders as they worked to incorporate principles of well-being into their designs. We are delighted to share highlights from each fellow's experience.

Dr. Mariana Díaz-Wionczek

Dr. Mariana Díaz-Wionczek is a professor of psychology, children's media advisor, and executive producer who creates meaningful, culturally grounded content for young audiences. As principal of MDW Consulting, she partners with organizations like PBS Kids, Sesame Workshop, and Fred Rogers Productions to design innovative, research-informed media that supports children's learning, development, and sense of identity across languages, cultures, and lived experiences.

Brittany Sommer Katzin, Ed.M.

Brittany Sommer Katzin, Ed.M. has a background in child development and psychology from Tufts and Harvard and creates educational media experiences for children and families. Her work with clients including Sparkler Learning, Noggin, Fred Rogers Productions, and Sesame Workshop focuses on social-emotional learning, social justice, family engagement, and product development to empower families and support early childhood development.

PRODUCT: The Marshmallow Project is creating a screenless physical toy for children ages 4-7, that will immerse them in interactive learning experiences associated with whole-child development. To safely empower children and challenge them to explore their interests and build their capabilities, this toy will use AI for the purposes of adaptivity and customization.

MARSHMALLOW.KIDS

Children today spend a significant portion of their day on screens—on average, 3.5 hours daily for children ages 5 to 8, and over two hours daily for 2- to 4-year-olds. While screens can support learning and entertainment, many parents (75–80%) express concern about excessive screen use and its potential impact on children's development (Common Sense Media, 2025). Furthermore, schools around the world are struggling to help students keep up in reading and math, with declining Programme for International Student Assessment (PISA) results in developed countries showing a significant drop in young students' proficiency (World Economic Forum, 2023). With children falling behind, many families are looking for new ways to help them learn outside the classroom.

HOW WE INCORPORATE WELL-BEING NOW

Through this fellowship, our focus has shifted from thinking of **safety** "not only [as] the absence of harm, but also [as] creating additional positive value" (UNICEF Innocenti, 2022). We began to focus on how the prosocial and positive tenets of our product could come to life in ways that foster well-being and allow children to flourish. Rather than solely preventing potential harm, we broadened our lens to think more about things like building children's sense of autonomy and competence; indulging and deepening their creativity; and ensuring they are exploring their identity in healthy ways.

+ The experience nurtures **competence** by adapting research-based activities to each child's abilities. The experience includes elements to ensure children feel motivated and confident as they face challenges.

+ The toy nurtures **creativity** by inviting children to imagine different worlds and universes. Through scaffolded interactions, kids contribute ideas and exercise agency. AI technology helps to make each experience dynamic and personalized, which is something that is difficult to achieve in traditional toys.

+ The toy nurtures **identity** by offering experiences where children can express preferences, explore the depths of their own imaginations and "try on" identities. Personalization, effort-based praise, and adaptive AI help to foster self-worth, agency, and belonging.

WHAT MORE CAN OUR PRODUCT DO TO ADDRESS CHILDREN'S WELL-BEING?

+ We are exploring using databases of children's voices to train the AI to understand nuances of children's speech so that we can more accurately understand a variety of speech patterns, styles, and voices (in turn, reflecting **diversity and inclusion**). Furthermore, we are in the process of collaborating with writers of diverse backgrounds to ensure the adventures reflect children's lived experiences and also serve as a window into the lives of others, with characters from a variety of cultures and walks of life.

+ We will prioritize child **safety** and data security at every level of the toy's design. We plan to use firmware signing, encrypted storage, and mutual system authentication, while limiting external connections to secure, local ones. We will also follow strict data minimization practices and ensure that all AI interactions are age-appropriate, constructive, and designed to redirect children to a caregiver if needed.

+ We will explore ways that we can boost children's **competence** through expanding the scaffolding built into the stories and activities and responding to children's ideas and answers in real-time. We will test features like layered hints, encouraging character prompts, and confidence-building feedback that meet children where they are and gently help them grow.

> *We want to empower children through a tool for creative expression, perspective-taking, and informal learning—one that sparks joy and imagination and builds confidence with every play session.*

LOOKING AHEAD

The fellowship gave access to experts who taught us ways to measure the success of child and family well-being in our product. Equally important, we spoke to members of the Youth Design Team (YDT), who are experts at being kids. As they offered ideas and feedback, and ultimately helped decide our final toy design, we were reminded of the importance of connecting with our users to test and co-design to create experiences that satisfy their needs and desires. As we continue development, we will prioritize user testing with diverse children and families to better understand how kids engage with the toy across cultural and linguistic contexts to make the toy inclusive of a broad range of users. By listening closely to families and iterating with intention, we aim to create an experience that reflects the richness of childhood—across languages, cultures, abilities, and identities.

POTENTIAL IMPACT

Our design approach revolutionizes how adaptive, voice-driven interactivity can unlock rich learning experiences, and offers a model for designers seeking to build creative, personalized learning tools.

+ The toy encourages imagination, flexible thinking, and playful exploration. By shaping narratives through their voices and choices, kids engage in creative experiences. The AI will personalize each interaction, offering dynamic scaffolding that adapts to each child's ability.

+ The toy can have a large potential impact on children's discovery and growth, building their self-worth and agency as they choose story experiences aligned with their interests. Through its commitment to accessibility, ethical AI, and diverse voices, the product offers a replicable framework for inclusive design—encouraging others in the field to consider identity, equity, and representation as core pillars of innovation.

REFLECTION

Ultimately, our goal is to deliver more than a toy. We want to empower children through a tool for creative expression, perspective-taking, and informal learning—one that sparks joy and imagination and builds confidence with every play session. As we continue building the toy, our commitment remains rooted in designing with intention, fostering well-being, and utilizing evidence-based practices to meet children where they are and have a meaningful impact on their development. By combining the power of generative AI with storytelling, we aim to foster children's well-being in real, measurable ways, while helping parents support their children's learning outside the classroom. We hope to contribute not just to playful learning, but to a more human-centered future for children's technology.

REFERENCES

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SESAME WORKSHOP

Joan Ganz Cooney Center

For more information about the Well-Being by Design Fellowship program, please visit joanganzcooneycenter.org/fellowship2025