



Taxonomies for Personalization and Differentiation in Special Needs Learning

REQUEST FOR PROPOSALS

Each individual interacts with the world through a specific, personal experience. Tendencies and traits that derive from genetic sequences manifest within the contexts of specific social, cultural and environmental influences. New technologies, tools and processes have enabled further understandings of how biological and experiential elements contribute to the developmental process, yet much remains to be known about these deeply personal elements of the human experience. This is particularly relevant to individuals divergent learning capacities and needs that extend beyond the mainstream, such as those considered to have Autism Spectrum Disorder (ASD).

The individual experience can be defined in many ways. Further understanding of the uniqueness of each person's experiences will enable engagements in a wide array of interactions to be better structured – between teachers and students, designers and their users, or physicians and their patients. That progress will be expedited with established, dynamic (e.g., [Kingston et al., 2017](#)) taxonomies and ontologies – sets of shared concepts and terms. By better articulating the human experiences involved in learning, social interaction, emotion, and motivation, high impact interventions and support may be developed sooner.

mediaX and Stanford's Transforming Learning Accelerator seek to fund research that can lead to new taxonomies and ontologies of personalization and differentiation in learning for individuals with special needs. We invite Stanford thought leaders and research groups across all disciplines to propose concept-proving research that will inform the individualized learning experience. This includes social, psychological, biological, physical, technological and cultural contexts, across all demographics.

This challenge is open to questions and research methods that explore quantitative and/or qualitative methods and will lead to new understandings of the human experiences and learning pathways, including, but not limited to:

- Predicting, measuring and assessing the experiences of attention, emotion, cultural practice, sensing and sensemaking
- Methods and metrics to understand the interactivity between cognitive, emotional and physical states
- Identifying or improving interventions and support for individuals with ASD and other special needs that impact personal identity, cultural practices, and self-regulation
- Individualized neuroscience indicators for customized learning environments
- Privacy, security and Identity protection

We welcome contributions from all fields, and we especially welcome explorations at the intersection of disciplines.

TIME AND SCOPE

Proposals from teams including one or more eligible faculty members are invited for projects of \$15K to \$60K, starting no earlier than January 1, 2021 and finishing by June 30, 2021.





Proposals may be submitted via the [Stanford Seed Funding website](#) and will be received until Thursday, November 5, 11:00PM PST. Awards will be announced during the week of November 30, 2020.

CRITERIA FOR SELECTION

Scholarly merit and scholarly innovation: Is the project design clear, compelling and innovative?
Potential to provide actionable insights.

Clear and well-articulated design including timeline and budget.

FOR MORE INFORMATION

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mediaX at Stanford University is the affiliate program of the Human Sciences and Technology Research Institute in the Graduate School of Education, bringing innovative companies and researchers together to explore transformative learning experiences that improve the human experience and expand their future thinking.

Transforming Learning, an accelerator that came out of Stanford's Long-Range Vision, merges the science of learning with the design of learning experiences that are learner-centered and include dissemination partners in the research strategy.

