

**2019-2020 Distinguished Lecturer Series****Frederick Shic, Ph.D.**

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Dr. Shic is an Associate Professor of Pediatrics at University of Washington and an Investigator at Seattle Children's Research Institute's Center for Child Health, Behavior and Development. He leads Seattle Children's Innovative Technologies Laboratory which focuses on the exploration of new technologies and methodologies for enriching both our understanding of ASD and the lives of children with ASD. His current research interests include using eye-tracking to study visual social attention in ASD, functional near infrared spectroscopy to investigate brain mechanism, computational modeling to operationalize and synthesize working knowledge regarding typical and atypical development, and the development of specialized software (apps, video games, virtual reality, and informatics resources) and hardware applications (robots, wearables, and specialized monitoring tools) for educational and interventional purposes.

**Presentation Title: Everyday technologies in the lives of children with autism**

This talk focuses on the evolving role that everyday technologies play in the lives of children with autism spectrum disorders. Platforms discussed include mobile applications, video games, social robots, and virtual/augmented reality. Applications include systems for measuring developmental abilities (including early screening for autism), systems with therapeutic or educational intent, and augmentative aids. We discuss how these platforms have evolved over time, why they work, and how their future intertwines with the everchanging landscape of technological innovation and invention. We discuss trends in machine learning, computer vision, and big data and discuss their potential for shaping the way we think about technology for developmental conditions and translational science. Along the way, we also discuss potential drawbacks of technology, their limitations, and discuss how our community can work together to meet current and future challenges.