Abstract

Technology-assisted Intervention for Children with Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a common developmental disorder with a high prevalence rate of 1 in 68 children in the U.S., which is characterized by social communication impairments. Intelligent systems have been continuously explored as a potential efficacious intervention tool for young children with ASD. Although this research has been conducted for decades, several challenges exist, including: 1) how to target the core deficits of ASD using technologies; 2) how to make intervention systems adaptive based on children's real-time response; and 3) how to detect interaction cues non-invasively. This presentation will introduce the design, development, and validation of intelligent intervention systems targeting core social communication deficits of ASD. Then, further discussion will be given on the problems, challenges, solutions, and opportunities in applying intelligent systems on mental health in general, as well as important future directions.