



Character Assisted Therapy



About the Project

AutismLink and the Autism Centers of Pittsburgh have been working hand in hand with Interbots, a Carnegie Mellon University high tech spinoff company to develop a robot geared toward interacting with children with autism -- preferably those who are nonverbal or who have emerging verbal skills.

The idea behind the project is that children w/autism are more likely to, and more interested in, interacting with a robot rather than a human. But the more endearing and "human like" and non-threatening the robot is -- the more we feel that we can teach certain verbal and emotional skills to children with autism, which will hopefully later be generalized into every day life.

There are many applications for this innovative idea, but we are just scratching the surface. It is our belief that this robot can be used to initially engage a child and eventually result in the acquisition of many skills, including emotion, language, etc. We are currently developing an iPad application to allow therapists and clinicians to work with the robots to teach various skills.

How the Program Will Be Conducted

The audience for the first 10 weeks of the program is approximately 30 local Pittsburgh children.

The primary piece of technology used in Character Therapy is "Popchilla", a small, emotionally expressive interactive robot developed by Interbots. By moving his head and rabbit-like ears, and changing the color of his eyes, Popchilla can express a variety of emotions including happy, sad, angry, confused, surprised, and embarrassed. An accompanying remote control allows a "puppeteer" to direct where Popchilla is looking and what emotion he is expressing. A microphone in the remote lets the puppeteer literally speak for Popchilla -- as they talk into the microphone their voice comes out of the speaker inside the robot, and the robot's mouth moves in time to the audio.

The Character Therapy project is based on engaging kids with interactions designed to be similar to playing with games. The nature of the custom iPad apps requires the children to actively assess the behavior of the robot and respond to the questions and tasks posed in the app.

Additionally, the technology behind Popchilla allows a therapist to talk to a child as the character itself. For kids that may have difficulty focusing on another human, we are confident that that the character intermediary will provide a compelling alternative. Since the character can express gaze and emotion and talk with a human voice, the idea is that children will be able to generalize their interactions with the character to interactions with other people. In addition, the children themselves will be able to control the character, allowing them to explore expressing their emotions and focusing on faces from a third person perspective. This dual-direction role playing interaction will provide fun, compelling practice of important social skills.

Applications:

Applications will be considered by a committee at the Autism Center of Pittsburgh, Community Alternatives and Community Psychiatric Centers. Applicants will likely receive an assessment from Dr. John Carosso, PsyD prior to the beginning of the program.

*Parents are welcome to observe *without interfering* in our observation rooms with one-way glass.



Character Assisted Therapy Application



Parent Name: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Cell Phone: _____ Email Address: _____

Child's Name: _____ Child's Date of Birth: _____

Child's Gender: ___ M ___ F

Does the child attend school all day?

Is the child verbal or have emerging verbal skills?

Is the child receiving wraparound? If yes, which agency:

If the child receives wraparound, please indicate days, times and number of hours/week:

Do you have adequate transportation to come to the Autism Center's North Hills Facility?



Character Assisted Therapy Application



Is the child on a restricted diet (If yes, please explain)?

Does the child have any known allergies?

Do you permit the use of video and photography in order for us to record the child's progress?

Why do you feel your child would be a good fit for this program?

Additional Comments or information:

Parent Signature: _____

Please return this form to: Attn: Interbots Project, Autism Center of Pittsburgh, 135 Cumberland Rd., Pittsburgh, PA 15237