1. (Child and

Child creates a 3D

uploading a photo.

InnerVoice

InnerVoice empowers kids struggling with communication by building engaging tools that encourage learning through play.

2c. Emotional mimicry

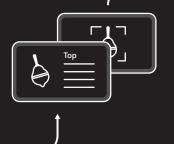
The child selects an icon depicting an emotion. The avatar portrays the emotion to the child.



2b. Object recognition

9 game

The child points the device at an object. Azure Computer Vision identifies the object and informs the child through text or speech.





2a. Text to speech

The child types a word or phrase. **Azure Cognitive Services** converts the text to speech, which the avatar reads aloud.



2d. Q&A

The child can either type or ask questions verbally. Azure converts the speech to text. The avatar responds using the Azure Bot Service and QnA Maker.



Challenge

From a young age, neurotypical children learn social, cognitive, and communicative abilities by listening to speech and looking at faces. But when these skills develop atypically, the global effects on a child can be profound—such as those seen in children with autism, which affects 1 in 59 children every year. Children with autism often struggle to connect emotions with speech, requiring specialized support to learn basic communication skills.

Solution

Despite their challenges, children with autism can be highly motivated to learn. iTherapy developed the InnerVoice app to help them learn social communication skills from 3D avatars of themselves. Modeled from photographs, the avatars are trained to mimic emotions through facial expression—like happy, angry, sad, etc.—and match them to common phrases like "I'm sorry," or "Thank you!" Azure Cognitive Services performs text-to-speech conversation, image recognition, and Q&A services, allowing kids to learn standard speech patterns through interaction.