

Innovative Solutions using 3D Kinect

By Trager, Brian

In the past decade, technology has enabled new ways to gain access to information especially for the deaf and hard-of-hearing community. A team at NTID's Center on Access Technology (CAT) has created an innovative solution utilizing the advances of 3D technology sensors built into the second-generation Kinect. While Kinect was created for the purpose of gaming, we were able to extend its capabilities to push the boundaries of accessibility in today's world. The team at CAT devised a system comprised of a Surface Pro, Kinect, and a projector to track a person, whether it be an instructor or speaker and project real-time captioning approximate to the person. The combination of body tracking and coordinate mapping has essentially created a greater degree of accessibility for an audience with captioning needs. While this project is still being researched in areas of accessibility benefits, this topic will focus on the technical aspect of the system and the inspiration for this innovative project. A real-time demonstration of the system will be part of the presentation.

Biography

Brian Trager is an Assistant Professor of the Information and Computing Studies department, specializing in programming, web development and mobile app development. Brian has led the implementation, development and oversight of several projects related to education and accessibility under the Center on Access Technology (CAT) at NTID.