

# Grace Hoppers Conference of Women in Computing 2011

**TITLE:** "Mind-Body Kinection, Utilizing the Kinect Platform for Therapeutic Recreation"

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**ABSTRACT:**

The Microsoft Kinect was launched as a sensory accessory for the Xbox 360 gaming console in 2010 and has since opened the door to a plethora of new interactive software by significantly enhancing human-computer interaction. Mind-Body Kinection utilizes open source code to design both a general platform and a specific application for the Microsoft Kinect. Our project focuses foremost on creating a platform that allows average Kinect users to create applications for their device with which they can control a projected 3D graphic model with their body movements. This platform is unique in that users need no prior knowledge of how to code, which mends a significant gap between computer programmers and those without coding experience. Clients of all experience levels will be able to design a puppet, task, and environment, and instantly interact with the technology and with fellow users through their digital creation, whereas previously this was only achievable by adept programmers. Consequently, this software allows an exponentially larger population to have the capability to produce applications for the Kinect and opens the door to innumerable new uses for the Kinect, including educational, artistic, entertainment-oriented, and therapeutic tools. As a proof of concept, we will utilize our platform to develop a therapeutic tool for autistic individuals in the form of a game similar to existing music therapy for autistic patients. This application will ease and encourage interpersonal functioning in the patient via digital interaction with a therapist.