# Direct Interface to Digital Communities Tony Carr, Oleksiy Golovin, Jana Lepon Mentors: Dr. Eliot Winer, Andrew Koehring, Ken Kopecky

## What is Second Life?

Second Life is an online virtual world. Beyond only serving as a social space for



players, it is used by companies, universities, and researchers for a myriad of applications.

## Goals

Track users' body movements

Use gestures as input to control avatars

Stereoscopic (3D) display



Natural Interfaces to Virtual Spaces As online comunities grow, the need for more intuitive interfaces increases. Mouse and keyboard do not allow users to interact seamlessly with the virtual environment. Gesture recognition is the next step toward immersive experiences in digital worlds.



Solution

Infrared cameras detect the positions of trackers mounted on the user's body. The user's actions are translated into movement commands and sent to the Second Life client. The game is projected in stereo onto the four walls of the C4 CAVE.

### **Future Directions**

Our solution improves simple navigation and display, but it is not truly immersive. Potential advances include voice chat, greater navigational control, and an improved object creation interface.