Direct Interface to Digital Communities

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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

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.

Natural Interfaces to Virtual Spaces
As online communities 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.

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