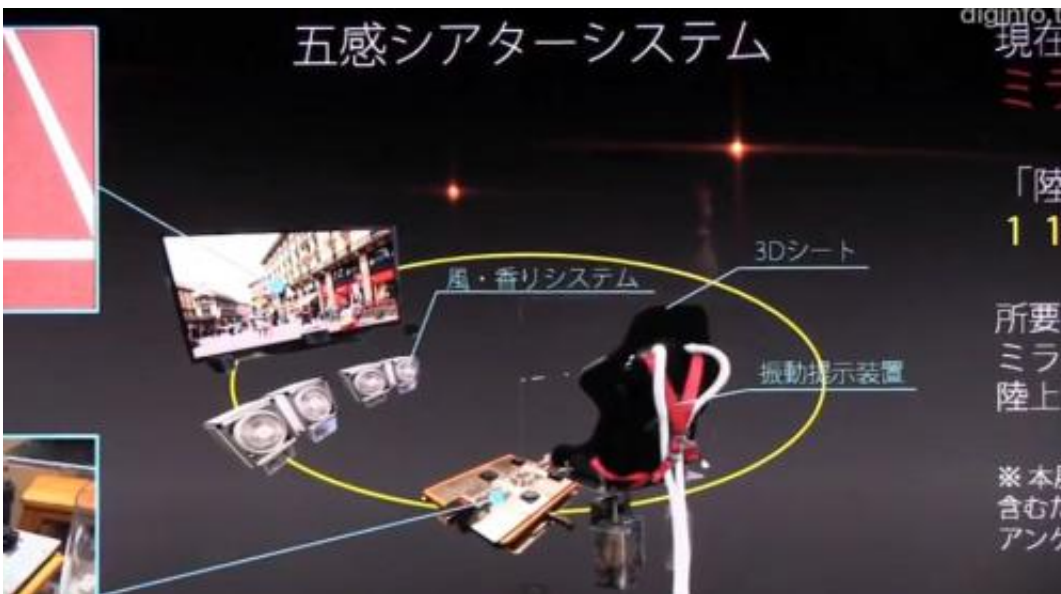


Who needs magic carpet? TMU has virtual body chair (w/ video)

December 21 2012, by Nancy Owano



(Phys.org)—Remember when immersion meant watching whales move around on super-sized cinema screens with surround sound? Japan's researchers at the Ikei Laboratory of the Tokyo Metropolitan University Graduate School of System Design are well ahead of the game. They are now developing "virtual body" technology that uses the five senses. Imagine transforming a seated viewer, feeling the ground, into a running Usain Bolt heading toward greatness in the 100-meter dash or into a strolling tourist enjoying aromas of cut lemons and sea salt and the

sensation of a gentle breeze.

The lab researchers are going all out, beyond audio and video, to recreate experiences such as feeling the wind or stepping on the ground or smelling food. Welcome not so much to the virtual view as the virtual body, which is the way they refer to their five-senses technology.

Yasushi Ikei, professor at the TMU, did the introductions in a video presentation from DigInfo TV. He described components of his team's system. Demonstrating the virtual body system involved a 3-D monitor, headphones, a fan to create a breeze and spread scents, a chair that leans back and forth and vibrates partially, and foot pedals.

These are designed to work together as a unified system to stimulate the five senses of the subject fixed in his or her seat, for the ultimate virtual experience.

The chair moves to provide the subject with directional and vestibular sensations. The legs will move to create a sense of walking, running, moving up and down.. If the mode is running, very large vibrations are felt, he said, and it is possible to create vibrations from shins to knees. "When you walk in the city there are various scents and breezes, and these are also recreated," he added.

As with many other technology initiatives in Japan, this virtual body system is being targeted as a suitable application for the aged. That should come as no surprise to Japan's population watchers. Shimazake Kenji, professor at the National Graduate Institute for Policy Studies, has commented that Japan is a hyper-aged society with a dwindling population. Technology teams are working on ways to help and enhance activities of an aging population.

In the DigInfo TV presentation, the narrator said, "In these modern times

the population is aging, so Ikei Laboratory would like for seniors who find it burdensome to go outside to be able to experience traveling around the world by using this equipment."

More information: via Diginfo.tv

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