
Don't lie to Wii

U of M student's Wiisearch Wiiveals the hidden truth

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When University of Memphis psychology student Nicholas Duran picks up a "Wiimote," he's not playing video games. Duran, a Ph.D. candidate, uses the Wii to detect lies.

In 2007, assistant psychology professor Richard Dale and lab students connected a Wii controller to their computers and conducted a variety of experiments. They discovered the Wiimote can be used as a scientific tool.

"It allowed us to study how your thought process can be tracked and predicted by even the finest grained movements of your arm," Dale said.

Dale and his researchers chose the Wii because of the gaming system's popularity, with hopes that it would appeal to students so they would want to help with the project.

Dale sought to prove that humans instinctively move their arms and hands in relation to what they are thinking.

"Humans tend to do this intuitively," Dale said. "It's similar to when your hand might move around a menu when deciding what to eat."

Lie detection research using the Wiimote began when Duran received a National Science Foundation Graduate Fellowship for his studies in deception and worked for psychology professor Danielle McNamara in 2005.

"Nicholas came to me with a very prestigious fellowship," McNamara said, "and we just merged his study of deception with Dale's studies on the Wii."

Dale and Duran plan to use the arm movements detected by the controller to determine whether subjects are lying.



Casey Hilder

Students in The U of M's psychology department use Wii controllers as lie detectors. The "Wiimote" works as a motion sensor that picks up on subtle, involuntary arm movements and interprets them as cues for deception.

"Participants intentionally gave false information in the task, and (Duran) was able to extract even subtle movements of the Wii remote and could predict on which trials the participants weren't telling the truth," Dale said.

"When you deceive someone, you take into account what you think they know," Duran said. "This strategy of deception influences body language, like the way you hold the Wii controller."

The researchers said they hope the study shows that it is human nature to tell the truth. They believe that the Wii controller has provided them with a way to prove it.

"When people lie, their words are pulled through their body movement," Duran said. "People can't correct the bias to tell the truth."

McNamara said she is pleased with the results her team has found and believes this study could be very valuable.

McNamara, Dale and Duran have also analyzed deception with other devices, such as a computer mouse, which yielded similar results.

Duran is writing his Ph.D. dissertation on this study and has received a National Science Foundation Post-Doctoral Fellowship to continue.

"The overall theoretical message we are pursuing is the idea that your body serves as a window into your thought process," Dale said. "Our studies are suggesting that body and mind are very deeply interconnected."