It has served couch potatoes faithfully for decades but the humble remote control will come under attack at this year’s Consumer Electronics Show in Las Vegas.

Flat panels that incorporate motion and voice-recognition controls similar to the Kinect system for Microsoft’s Xbox 360 video game console are expected to be a big theme at this year’s CES, which kicks off this evening.

"I fully expect to see other companies incorporating motion control," said Shawn Dubravac, chief economist for the Consumer Electronics Association, the event organiser. "You're going to see motion control integrated into these devices like never before, so you'll be able to control your television with a wave of your hand."

Interface experts believe there is an opportunity to displace traditional remote controls, which were bewildering for users even before internet capabilities were introduced.

"When you have thousands of channels and thousands of options, the interface is a lot harder than it used to be," said Robert Jacob, professor of computer science at Tufts University. "Just for watching TV, interfaces have gotten too complicated."

The trend with all electronics is toward "reality-based interfaces" that duplicate natural actions,
rather than requiring users to learn new ones. In virtual reality, for example, "if you want to see
the view to your right you don't press alt-control-right-arrow, you just turn your head." Motion-
controlled televisions will only succeed if they can get this right, Jacob said.

Ben Shneiderman, professor of computer science at University of Maryland, is also sceptical.
Voice control, for one, often has a "clutch" problem - or an inability to distinguish natural
conversation from commands, which limits its effectiveness.

"The cognitive load of speaking is more than people realise so being able to touch a really
powerful button [on a remote instead] is a big advantage while you're continuing your discussion."

Still, Shneiderman - whose team helped develop the touchscreen technology behind the iPhone -
also believes TV interfaces need simplification. A better step, however, might be tablet or
smartphone apps that allow control.

"Gesture and voice have always had a strong attraction, but they don't always turn out like the
promoters believe."

5 Comments

All comments should respect the New Scientist House Rules. If you think a particular comment breaks
these rules then please let us know, quoting the comment in question.

Oliver Buchan on January 9, 2012 1:04 PM
The war over control of the remote just got a whole lot more interesting.

Mike on January 9, 2012 2:02 PM
will this actually work in a crowded office/pub/classroom or home surround integrated communications. or side by side in a TV shop/ Bookies or on planes/trains and ships?

Nick Healey on January 9, 2012 5:03 PM
I fear this is a non-story, as the devices would forever be misinterpreting the everyday movements of people in the room. The future, I'm sure, is indeed in smartphones and (especially) tablets -- Sky just announced today they've invested in Zeebox, and are going to integrate Zeebox into Sky products.

Mike Collins on January 9, 2012 8:54 PM
moving your thumb a fraction of an inch or waving your "entire" arm at a kinect motion sensor....you tell me which one the couch potato is gonna choose? right, I don't see the remote going away anytime soon.....that is if you can find it.

Z on January 10, 2012 12:35 AM
On the above question on in crowded office, I don't know much about computer interpretation of gestures. I imaging there should be a universal gesture for grabbing control from someone who already has the machine's attention.