The virtual keyboard may soon be a reality (w/ Video)

May 7 2014

Today we are constantly online and integrated in a virtual existence. Wii and other game modules make it possible to engage the entire body when playing, and soon Google Glasses and similar products will open up a whole new world. Shortly there will also be a virtual keyboard on the market, created by researchers at MDH. This is advanced equipment for the modern user which will change the potential for working and using new technology.

"Virtual technology is the future. It allows you to be available

everywhere even without a mobile phone, a tablet, or a computer. We have the ideas and the technology and now we want to develop prototypes. To do so, we need more funding, which is often the main challenge for research," says Lars Asplund, Professor Emeritus in Robotics at MDH.

The research project which provides the basis for further development has been ongoing between 2005 and 2013, with a focus on robot vision, but that technology turns out to be the solution for an accessory that Google Glasses will require. The keyboard is constituted by two bracelets which are placed around the wrists or over the hands. Through sensors it feels the position of the fingertips, the surface and the movements of the user and can therefore ascertain which key is touched, while the user can see it for instance in a pair of Google Glasses. The two units will also function as a computer mouse and above all as a unit for gesture input.

"Keyboards today look almost the same, and work in almost the same way, as 19th-century typewriters. Our virtual keyboard makes possible a completely new form of interaction and offers relative positions which may, for instance, decrease the risk for repetitive strain injury," says Lars Asplund.

There are many areas of application for the new innovation, both for businesses and for individuals, such as use in small spaces, for interviews to avoid the barrier of the journalist's computer screen, and by individuals who want to avoid the ergonomic problems that are common when using a physical keyboard and computer mouse. However, for the virtual keyboard to be a reality, more funding is required.

"This project has a great potential and can be completed in a year, but we need another SEK 10-15 million to develop the hardware design, manufacture a series, and launch the product on the market," says Lars

Asplund.

Provided by Mälardalen University