



Tech Talk

Transhumanism ©

by Max Farrington and Pascal Grierson

We've made a step closer to Transhumanism, which is the idea that the human condition can be altered with available technology. For example, implants of computer chips in the body. This significant step was made at Stanford University, located in California. Alex Chortos and Andre Bernt published their research in the American revue magazine, "Science".

Their work is based on artificial skin and on the reproduction of the touch sense. It is only baby steps at this point, but they have managed to use organic circuits and pressing sensors to re-create the feel of touching. This hasn't been tested on humans, only on lab rats for the moment but the results were very convincing. Essentially, researchers have managed to convert the pressure of an object into digital data, which was then sent to the cortex and neurons within the brain.

In the future this might solve today's challenges with prosthetics. Even though they are more and more sophisticated and maneuverable, they still don't have a sense of touch. This is very problematic for people who suffer from PLP, Phantom Limb Pain, which is the sensation of pain coming from a limb that is no longer there. It is estimated that this impacts 60 to 80% of amputees. PLP can cause a lot of stress and anxiety.

This technology has only been tested on lab rats, so their commercial release won't happen for at least another 5 to 10 years.

Of course the other senses have also evolved towards transhumanism. Let's take hearing for example; a lot of older people lose their hearing and have to wear a hearing aid, to hear things properly. In the future, such devices could be directly implanted in the brain.

It is the same for eyesight. Soon, we will be able to create and connect bionic eyes directly to the brain. Today, there is a product called Argus II, launched by Californian firm Second Sight, which can partially restore eyesight. It costs \$145,000 and has been used by over 80 people in the last few years. It cannot recover full eyesight, which means it does not "cure" complete blindness. But research is moving in the right direction.

The problem with these new bionic limbs, eyes, or chipsets directly integrated into our brains is that it is very controversial. The two main criticisms are those who object to the long-term transhumanist objectives, which could be called practical criticisms, and those who object to the idea purely on ethical principles. Some people are going as far as to say that this will change human nature and therefore, dehumanize the human race and that in extreme cases this could lead to the enslavement of selected humans who could be altered to act like robots.