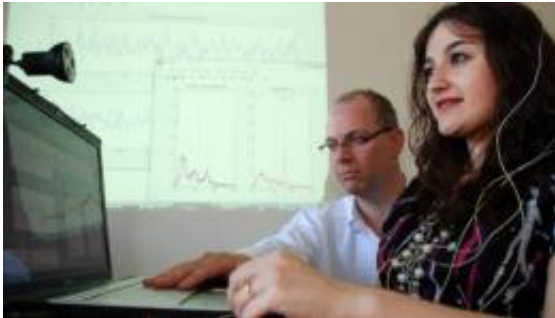


Communicating person to person through the power of thought alone (w/ Video)

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Dr. Chris James demonstrating brain to brain communication using BCI to transmit thoughts, translated as a series of binary digits, over the internet to another person whose computer receives the digits. Credit: University of Southampton

New research from the University of Southampton has demonstrated that it is possible for communication from person to person through the power of thought alone.

Brain-Computer Interfacing (BCI) can be used for capturing brain signals and translating them into commands that allow humans to control (just by thinking) devices such as computers, robots, rehabilitation technology and [virtual reality](#) environments.

This experiment goes a step further and was conducted by Dr Christopher James from the University's Institute of Sound and

Vibration Research. The aim was to expand the current limits of this technology and show that brain-to-brain (B2B) communication is possible.

Dr James comments: "Whilst BCI is no longer a new thing and person to person communication via the nervous system was shown previously in work by Professor Kevin Warwick from the University of Reading, here we show, for the first time, true brain to brain interfacing. We have yet to grasp the full implications of this but there are various scenarios where B2B could be of benefit such as helping people with severe debilitating muscle wasting diseases, or with the so-called 'locked-in' syndrome, to communicate and it also has applications for gaming."

His experiment had one person using BCI to transmit thoughts, translated as a series of binary digits, over the internet to another person whose computer receives the digits and transmits them to the second user's brain through flashing an LED lamp.

While attached to an EEG amplifier, the first person would generate and transmit a series of binary digits, imagining moving their left arm for zero and their right arm for one. The second person was also attached to an EEG amplifier and their PC would pick up the stream of binary digits and flash an LED lamp at two different frequencies, one for zero and the other one for one. The pattern of the flashing LEDS is too subtle to be picked by the second person, but it is picked up by electrodes measuring the visual cortex of the recipient.

The encoded information is then extracted from the [brain](#) activity of the second user and the PC can decipher whether a zero or a one was transmitted. This shows true brain-to-brain activity.

Source: University of Southampton

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