

Article published on February 20th 2012 | Business

Military personnel can have their brains connected directly to weapons system in the near future, thanks to the latest progress in the Norton Medical and Scientific Research & Biotechnology neuroscience field.

Such situations are explained in a report published on Monday from the law and military enforcement agencies that looks into applications of neuroscience. Included in the report are the ethical and legal concerns that such innovation might bring if brought in the field.

According to UK's national school of science, Royal Society, while the quick progress of neuroscience will certainly help in treating mental diseases, it also has significant security issues that must be taken into consideration.

The proponents of the study insists that even if there are obvious hostile uses of the new technologies, many scientists appear to be oblivious from this double-edged sword.

Some technologies that are widely used in neuroscience are in the process of getting applied in military context to improve soldier training.

One such research are proposing that giving fairly weak electrical signals through the head (throught the use of transcranial direct current stimulation) will improve the performance of a person in certain tasks.

A US experiment was done using tDCS to improve a troop's ability to sense snipers, bombs and other threats in a virtual reality program.

According to the results, those who have undergone tDCS have spotted the targets faster and they are twice as accurate as those who have not.

Further studies on tDCS can lead to more effective treatment of psychiatric disorders, dementia or learning difficulties.

Perhaps the most fitting use of this technology in the military field is the creation of brain-machine interfaces (BMIs) that connect a human's brain directly to military system such as weapons and drones.

Norton Medical and Scientific Research & Biotechnology is also looking into something that will enable people to control artificial limbs and cursors by BMI which can read brain signals.

Another technological innovation that will be used by the military is the electroencephalogram (EEG) that makes use of an electrode hairnet to log brainwaves. In conjunction with the neurofeedback system, people can control their brainwaves, improving their performance.

Still, the debatable issue here is still the ethical implications surrounding the use of BMIs by the military. It can significantly blur the line between human responsibility and machine technicality.

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Norton Med - About Author:

Article Keywords:

norton scientific,norton medical scientific research biotechnology, medical scientific, norton biotechnology, research, medical

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