## Psychic 'mind-reading' computer will show your thoughts on screen

## By David Derbyshire

Last updated at 7:55 AM on 02nd November 2009

A mind-reading machine that can produce pictures of what a person is seeing or remembering has been developed by scientists.

The device studies patterns of brainwave activity and turns them into a moving image on a computer screen.

While the idea of a telepathy machine might sound like something from science fiction, the scientists say it could one day be used to solve crimes.



Leap forward: Halle Berry in X-Men. The telepathic abilities from the films are closer to reality after inventors created a mind-reading machine

In a pioneering experiment, an American team scanned the brain activity of two volunteers watching a video and used the results to recreate the images they were seeing.

Although the results were crude, the technique was able to reproduce the rough shape of a man in a white shirt and a city skyline.

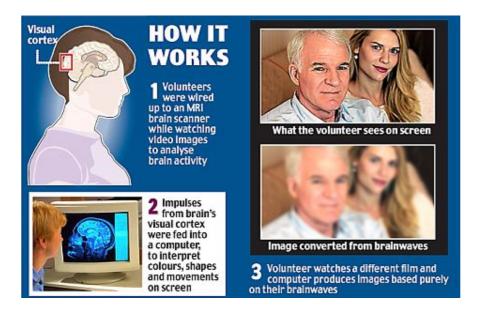
Professor Jack Gallant, who carried out the experiment at the University of California, Berkeley, said: 'At the moment when you see something and want to describe it you have to use words or draw it and it doesn't work very well.

## More...

- · 'Fear detector' being developed that will be able to sniff out terrorists
- · New 'plastic' nerves could offer sense of touch for amputees with prosthetic limbs

'This technology might allow you to recover an eyewitness's memory of a crime.'

The experiment is the latest in a series of studies designed to show how brain scans can reveal our innermost thoughts.



Using a functional magnetic resonance imaging (fMRI) scanner, normally found in hospitals, the American team scanned the brains of two volunteers while they watched videos.

The results were fed into a computer which looked for links between colours, shapes and movements on the screen, and patterns of activity in the brain.

The computer software was then given the brain scans of the volunteers as they watched a different video and was asked to recreate what they were seeing.

According to Dr Gallant, who has yet to publish the results of the experiment, the software was close to the mark.

In one scene featuring comic actor Steve Martin in a white shirt, the computer reproduced his white torso and rough shape, but was unable to handle details of his face.

In another, the volunteers watched an image of a city skyline with a plane flying past.

http://www.dailymail.co.uk/sciencetech/article-1224489/Psychic-plug-brain-thoughts-screen-developed.html#

The software was able to recreate the skyline - but not the aircraft.