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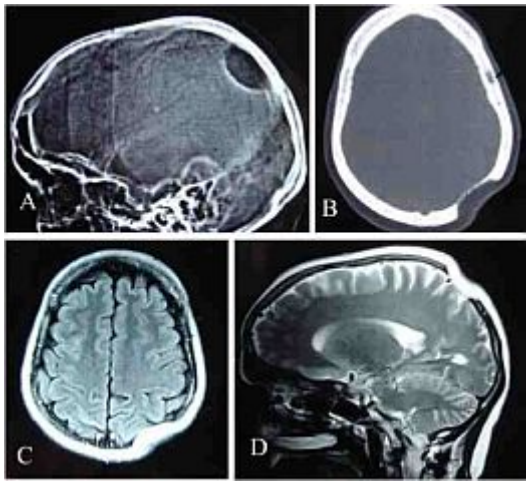
Microsoft develops search engine for the human body

Posted on March 11, 2011 by Matthew Finnegan (http://www.techeye.net/author/matthew-finnegan) - Software (http://www.techeye.net/category/software)



A scientist at Microsoft (/company/microsoft) has developed a method for searching through a patient's anatomy, like a search engine, to easily find organs to help in diagnosis.

Antonio Criminisi at Microsoft Research Cambridge has come up with a method that helps elimate the difficulties that doctors often face in navigating three dimensional images produced by MRI scans, which are often tricky to view specific areas.

The search engine created by Criminisi is essentially a programme which allows the user to search an index created from the scan and will automatically be presented with a clear view of a specific body part.

The software is able to signpost specific structures by detecting patterns of light and dark within the scan itself, which was achieved by training an algorithm to recognise features in hundreds of scans where organs had been marked out.

This means that within just a couple of seconds it is possible to bring up the necessary results on screen.

The scan can then be compared with an older one to see how it has changed, offering a quicker way to detect for changes in a problematic area.

The team is looking into the use of voice recognition and even finding another ingenious medical use for Microsoft's Kinect controller. (/hardware/kinect-used-for-robotic-surgery)

The use of the Kinect device could mean that surgeons will be able to consult a patient's scan image during surgery without having to mess up their mouse or keyboard, or indeed unsterilise their rubber gloves.

According to the *MIT Technology Review (http://www.technologyreview.com/computing/35076/?p1=A2)*, Kenji Suzuki, an assistant professor at the University of Chicago, says that if the search engine does offer a user-friendly way of searching then it could drastically improve patient care.

"As medical imaging has advanced, so many images are produced that there is a kind of information overload. The workload has grown a lot," he said.

And if all this wasn't enough, Criminisi is also working on a way to actually detect diseases within the body.

"We are working to train it to detect differences between different grades of glioma tumor, a type of brain tumour," Criminisi said.

Tags: antonio criminisi (http://www.techeye.net/tag/antonio-criminisi), kinect (http://www.techeye.net/tag/kinect), microsoft (http://www.techeye.net/tag/microsoft), surgery (http://www.techeye.net/tag/surgery)