IoP Neuroscientists develop new 'Brain' App

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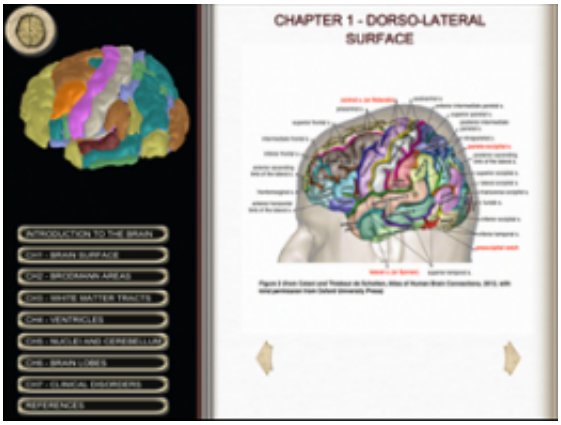

Image taken from the 'Brain' Study Room

A team of neuroscientists from the Institute of Psychiatry (IoP) at King's College London have developed a digital atlas of the human brain for iPad. The 'Brain' App is the first of its kind, and is based on cutting edge neuro-imaging research from the NatBrainLab at the IoP.

Dr. Marco Catani, Head of the NatBrainLab who led the development of the App with Dr. Flavio Dell'Acqua and Dr. Michel Thiebaut de Schotten, said: "For 10 years our lab has pioneered the use of highly advanced neuro-imaging techniques. This is the first time that imaging methods usually only applied to research have been used in an educational App. It's very exciting to see our work transformed into such an accessible, fun and beautiful tool."

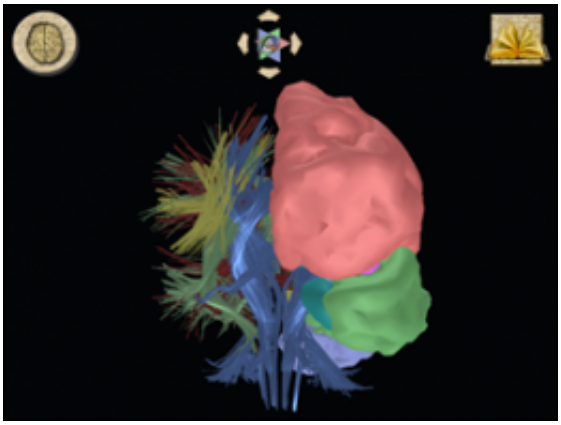

Image taken from the 'Brain' Dissection Room

Two types of scans were used to develop the content of ‘Brain’ – results from an MRI scan reveal the structural properties of the brain, and images from a Diffusion Tractography scan allow the user to identify connections in the brain.

The App is split into two virtual rooms. The Dissection Room allows the user to play with a 3D human brain, select individual structures and ‘pull’ them apart to visualize their anatomical features. The Study Room then offers a more thorough explanation of functional aspects and their relationship to neurological and psychiatric disorders.

Dr. Catani adds: “The interactive nature of our App really allows you to explore the depths of the neural network and appreciate the complexity of the human brain. Because the content is based directly on research, the finished product is an accurate reflection of the real thing.”

Dr. Catani and his team are now working towards developing the next version of the App. By integrating scans from several different brains into the programme, they hope to be able to offer the user the chance to

see directly how the brain develops from childhood to old age and the direct effect of different age-related disorders on the brain.

The App is currently being used by Dr. Catani and his colleagues to teach MSc students neuroscience.

More information: Marco Catani and Michel Thiebaut de Schotten are also due to publish the 'Atlas of Human Brain Connections' in May 2012, for more information, please visit the Oxford University Press website

Provided by King's College London