Serious Games & Digital Health

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Serious Games for Health Workshop
Philadelphia, USA. 22-23 March 2016

Serious Games for Post-Stroke Rehabilitation

Funded by NI Chest, Heart & Stroke Association
Serious Games for Respiratory Physiotherapy

Partner with Nottingham University Hospitals
EU Regional Development Fund

3D Visualisation for Anatomy Education

Real-time Medical Visualisation of Human Head & Neck Anatomy and its Applications for Dental Training

Partner with
• Laboratory of Human Anatomy
  University of Glasgow
Funding
• NHS Education for Scotland

**3D Visualisation for Physiology Education**

Data Acquisition
- Optical Microscope
- PET scan

Image Processing
- Processing: Image software
- TIFF files

Segmentation and Surface Generation
- Adobe 3D Slicer: Semi-automatic and manual segmentation
- OBJ files

Post-processing and Rendering
- Autodesk Maya 2010: Modelling and Animation
- FBX export

Interactive Application
- Unity/3D game engine
- ARCADIA
- Stereolab exa

Partner with
School of Life Sciences, University of Glasgow
Funded by
Physiological Society David Jordan teaching grant

**Sur-Face**: A mobile app for educating patients regarding corrective surgery of facial deformities

- Orthognathic surgery - a complex procedure to correct the underlying facial deformities
- Patients make voluntary decisions
- Understand the intricacy of the techniques & potential risks of the surgery before they sign the consent form
- Interactive 3D visualizations in healthcare app

Available on Google Play, search Sur ‘FACE’ Yeshwanth

Inspiring tomorrow’s professionals
Oculus Surgery
a mixed reality surgical training experience
Don’t worry Sir, you are in safe hands. We played the game well!


http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-642-54815-4
Mixed Reality Virtual Survivors for Holocaust Education

- The *Interact* Project
- Partners
  - The National Holocaust Centre & Museum
  - University of Huddersfield
  - Bright White Ltd
- Funding: NESTA, AHRC, The Arts Council England

Interaction of Holocaust Testimony and QA

Inspiring tomorrow's professionals
Virtual patients for training doctors’ communication skills

Thank you

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