

Teaching Innovation Projects

Final Project Report Form 2015/16

Outcomes and impacts:

The original aims of the project were to explore the use of Oculus Rift Virtual Reality headsets to deliver immersive teaching activities. Originally, we had hoped to migrate the existing Virtual Ward (developed in the KAVE at Pharmacy) on to the headsets, and to enable multi-user participation with several headsets all connecting to one shared virtual environment. However, upon exploring the technical requirements it transpired that migrating the existing Virtual Ward environment was not feasible due to the need to redevelop the Virtual Ward in its entirety for the headsets, and resources for this were not available. Pharmacy instead created a virtual space, that allowed multiple headset users to see a representation of others users in a linked virtual environment. This allowed multiple participants to 'see' each other wearing a headset in a basic environment populated from a commercial library of 3D models. Developing bespoke virtual reality environments was overly resource intensive for the sorts of learning activities we had envisaged and that met with what teaching staff were currently requesting for this project.

We began exploring other ways in which the headsets could be used to deliver learning experiences, and identified immersive videos as a possible area. After exploring the options, we determined that the headsets could be used to easily deliver such videos, supporting a range of options including 3D video, full 360° footage, as well as allowing us to present basic 2D footage with some scope for head tracking that provided a powerful, immersive experience for the user. We searched for content that would allow us to test the use of the headsets to deliver immersive experiences in this way with students in the School of Nursing and Midwifery, and found a video from the National Autistic Society, shot from the point of view of a young child with autism. We presented this video to more than 50 of our students who attended a User-Carer Awareness event, and used their experience as a prompt for a discussion. This event demonstrated the power of the immersive video (further details are presented below in Evaluation).

We have purchased 5 headsets and 5 PCs to drive them, so we now have all of the equipment necessary to present immersive experiences to students in small groups.

These headsets have allowed us to engage our students in an activity that genuinely gives them something new: being put in someone else's place, and this has been well received by students and staff alike. We are now exploring using other immersive footage, as well as producing our own. In September we will be filming an immersive experience that demonstrates what it is like for a child being admitted to hospital, putting the student in the child's position and allowing them to reflect on what helps and hinders in this situation. We have also had interest from the local NHS Trust who want to explore the use of this technology to produce immersive experiences, for example allowing students to experience what it is like to undertake a risk assessment at a patient's home, or to visit a person with dementia and to see the experience from the point of view of both the health professional and the person with dementia.

Further achievements:

Evaluation:

We trialled the use of headsets to deliver an immersive video with 50+ students at an event in May 2016. Students watched the video (a first person point of view video from the perspective of a young child with autism) and then engaged in a discussion about its content. They were then asked (informally, via discussion and comments on Post-Its) for their views on the use of this technology to deliver the activity, and their responses were overwhelmingly positive, with requests for more footage to cover more areas of practice. Students commented that the activity was an effective means of putting them in someone else's position, and suggested other areas (such as dementia) where this would be a useful activity. Their feedback included comments such as "I'll view it [autism] in a completely different way", and "Everyone needs to view it this way". The most powerful feedback came from one of our students who has a child with autism, who commented "I've never seen it through his eyes before - I think I understand more now".

Dissemination and outputs, including materials developed:

We presented the work to-date at the Teaching Symposium.

Future work:

Future work will focus on the development of bespoke video resources for use with the headsets in a range of areas. We have purchased a range of cameras to facilitate this: GoPro 4K portable camera, a Ricoh Theta 360° camera and an HD head mounted camera. We have firm plans in place to film footage at the RSUH Children's Wards, and the Trust have approached us about producing footage for other areas. We are also exploring options for filming community-based risk assessments and visits to people with dementia.

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