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Kickstart VR at Warwick taster sessions

An initial report on VR-enhanced seminars with staff and students

Overview

Held over 2 days in May 2017, these workshops provided a diverse group of staff and students at the University of Warwick with a valuable opportunity to experience and think about virtual reality. The VR phenomenon is at the top of its hype cycle (again), with significant breakthroughs having been made in technology and in the design of VR content. However, not many people in higher education have experienced what can be achieved with the latest technologies and content design approaches, and yet fewer have been able to contribute to its development in the context of learning and teaching.

For these workshops we brought an influential VR industry expert to Warwick (Catherine Allen, see the inset at the bottom of this page), along with a range of VR kit (including high-end Oculus Rift headsets). The aim was to observe its use in a real seminar-style situation, to listen to views from a broad range of people (covering arts, science, technology and social science), and to capture their critical and imaginative responses to the seminar. Catherine's experience in designing and running VR activities for arts and entertainment formed the basis of our initial seminar design. We were aware of the importance of six key factors:

- ✿ room layout, providing just the right environment for effective and comfortable immersive experiences;
- ✿ session design, so as to ensure everyone had enough time, without rushing, and that we could come back together for a discussion at the end;
- ✿ choice of VR experiences, aiming to give a good enough range of lo-fi and hi-fi examples;
- ✿ reliability of the equipment, so as not to detract with glitches and interruptions;
- ✿ clear guidelines and advice for participants;
- ✿ refreshments and energy boosters (enough sweets to keep us all going!).

We used 3 Oculus Rift kits including the necessarily powerful PCs, two of which were hired from a conference equipment company (£500 each for three days), and the third borrowed from the Visualisation Lab at WMG. Lo-fi VR was demonstrated using Google Cardboard. A Samsung Gear VR headset was used to demonstrate the mid-level, mid-cost option.

Participants

The 48 participants were carefully selected by the project team so as to achieve as broad a range of disciplines as possible - including academics from Life Sciences, Warwick Manufacturing Group, Law, Chemistry, Philosophy, Education, Theatre Studies, Medicine, Languages and History. We achieved a good male/female balance (22/26), varying ages and physical abilities (including a wheel chair user). Students' Union representatives and current students were included, as well as professionals from the Arts Centre (as there are potential synergies with arts events) and a small number of learning and teaching advisors and learning technologists. A questionnaire was sent to all participants, with some questions to answer before the session, some during and some at the end.

VR experience facilitators & research team



Catherine Allen is a BAFTA-winning, immersive media specialist. She has been responsible for a range of high profile digital entertainment products and has worked with major brands including Disney, Siemens and the BBC. A BAFTA VR associate, Catherine regularly keynotes, judges and mentors at industry events, contributing towards her goal of supporting the healthy growth of an emergent immersive media industry. Catherine is a Warwick Theatre Studies graduate.

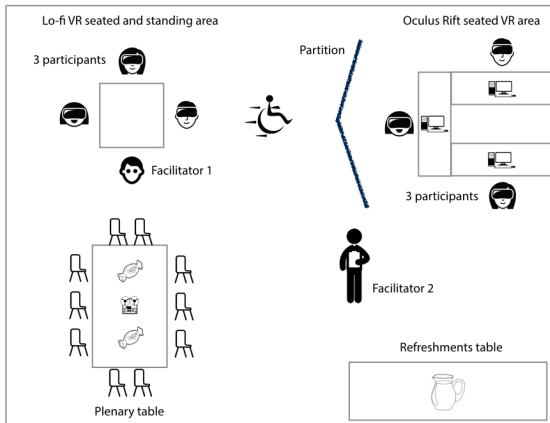


Dr Robert O'Toole is a National Teaching Fellow and a Fellow of the Warwick International Higher Education Academy. Robert has a PhD in Arts Education, having researched the potential and reality of design-led approaches to learning, teaching and the student experience in Higher Education. He is a Senior Academic Technologist at Warwick, and graduated in Philosophy.

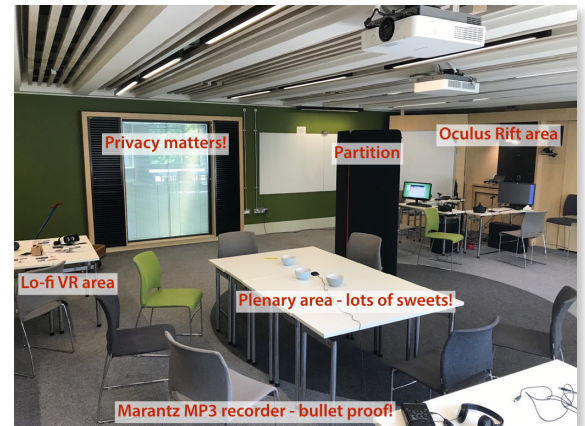
Format

Each seminar lasted for 1 hour and 15 minutes - a normal session stretched to give us a little extra time to deal with any technical issues that might arise. We had six participants per session. We started with introductions and a briefing, so as to give the participants some idea of what they were to experience and what we hoped to get out of it. Catherine made sure that the comfort and safety of the participants was assured, and we set clear ground rules - including saying that we should not watch other people when they are immersed in the experience, and we should try to be quiet.

The six participants then split into two groups of three. One group moved to the Oculus area for 15 minutes and did the Easter Rising Voice of a Rebel historical VR experience (BBC 2016, produced by Catherine, see inset below for an overview). The other group explored a range of lower-fi VR including Google Cardboard and a Samsung Gear VR. The lo-fi experiences were facilitated by either Catherine or Robert, and guided by a set of 3 how-to sheets. The Oculus group were watched over at all times by the other facilitator, so as to ensure that assistance could be given as required. Following a short break, we came back together as a group for a plenary discussion (audio recorded). Many of these discussions lasted longer than the 30 minutes we had planned for. The room layout was carefully planned to ensure a degree of privacy for the participants, with a partition between the VR areas. Noise from the road next to the building was a problem, windows open on a warm day.



The open area to the right of the lo-fi section proved to be useful, especially for the wheelchair user, who was able to move around safely while in a VR experience. This worked very well.



Initial reflections and recommendations

Contextualisation matters greatly (as predicted), setting the right atmosphere and environment is key. To begin with, we were too enthusiastic when introducing VR. We decided that we needed to make it seem more normal for the participants. This seemed to help with their ability to get into the Easter Rising VR and to play with the lo-fi VR. More could also be done to set up a space that seems natural (technobiophilic) and less unusual, less experimental and technical, perhaps with some plants and natural lighting.

The high quality immersive experience had a much greater impact than the lo-fi. It is certainly different in kind. Many of the participants reported that they were surprised by how they felt within the VR world, with some key points at which they realised that they could move their perspectives and be part of the story. Science, medicine and engineering participants were interested in a greater degree of interactivity than we had on offer (more akin to the HTC Vive), but were still very positive about the Easter Rising.

However, two participants did struggle with the technology, including one with dizziness perhaps caused by being a wearer of bifocal glasses. Some found that the novelty of the tech got in the way of true immersion to begin with. We should give people a chance to redo the experience.

The VR enhanced seminar format works well, and could (with sufficient equipment) be enlarged up to 20 students at a time. However, the equipment is bulky, and for now would need to be installed semi-permanently in a dedicated space. A flipped classroom model may also work well, with students able to book slots at a VR centre to do experiences before coming to a seminar or lecture. There was much interest in creating 360 video for different purposes, including giving viewers a chance to experience different perspectives (e.g. being in a wheelchair on campus).

There was widespread agreement that we should expand the investigation, with the provision of a semi-permanent VR seminar and drop-in space, with dedicated support and tools for making VR experiences.

Easter Rising - Voice of a Rebel

Created by the BBC and VRTOV, Easter Rising takes us back through time to explore the memories of one man who was a rebel in the siege of the Dublin GPO in 1916. The sudden acceleration in VR technology is complemented by a new generation of VR content, exploring many varied formats and genres. Easter Rising as an example of serious VR, with direct relevance to some academic disciplines. Our objective was to show how well-designed, hi-quality VR, experienced in the right setting, can deliver an experience that is bodily, emotionally and intellectually immersive and challenging.

