Workshop 4 Report

Workshop 4, July 5, 2021.

1.0 Workshop setup:

The workshop took place in a lab room in the ABI building. Participants were a mixture of dance undergraduates, postgraduates, and engineering undergraduates. In the first half of the workshop, participants used the 360 3D point cloud feed with cameras mounted in the center of the ceiling, with a VR headset.
We then moved through several scenes that Hazel and Rae created in Unity, using one HTC Vive headset; a velocity/particle emission scene, a colour changing scene, and a scale changing scene. These scenes also made use of the axis neuron motion capture suits.

2.0 Event Structure:

Participants took turns wearing the VR headset to navigate through the 360 3D point cloud, and other dancers were asked to enter/leave the space with the participant.

After the person wearing the headset had explored the view, they were asked to try to choreograph another dancer using the VR view.

After this, one dancer at a time put on the neuron motion capture suit and used the HTC Vive VR headset to explore the scene which linked the velocity of body parts to particle emission.

Then, one dancer at a time explored the colour changing and scale changing scenes.

3.0 Results

3.1 360 3D video point cloud

3.2 Velocity related particle emission

This was the first experimental demo that really encouraged a lot of movement from participants, as the technology previously explored in the workshops was centered around novel perspectives. Participants would shake their limbs and jump around to achieve dramatic effect. One participant tried to roll a motion from the top of their body to the bottom to create a wave of activity. They also experimented with holding their bodies completely still to stop particle

emission and become essentially invisible. An issue raised was that visibility of the human form could become clouded when lots of movement was happening around the centre of the body. Participants were usually focussed on moving their extremities, and not their core body, so we would like to experiment with altering the emission rates of the hands vs the pelvis, for example. A limitation of the neuron motion capture software is that there are only two points of capture for the spine; the pelvis and the upper back, which creates stiff spinal motion. This was a small frustration for some dancers, as obviously movement of the spine is important to motion as a whole.

3.3 Scale and Colour changing scene

Both scenes encouraged huge and rapid movements from participants, who were looking for a big response in the landscape.