**Project Name: Use of HTC-Vive and Microsoft Hololens to Simulate Group Interactions**

**Midway Progress Summary**

The midway progress summarises how you are progressing and what milestones and activities you still have left to complete for your Scholarship Project. It also provides an opportunity to identify issues and alert us to any changes that may affect the project.

Please return this form completed to [futuresobservatory@uwa.edu.au](mailto:futuresobservatory@uwa.edu.au) at the midway point of your project (*For an approximate due date refer to Summary Table/Project Plan)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Leader:** | Prof Stuart Bunt | **Date prepared:** |  |

1. **Current project status**: The RAG (RED, AMBER, GREEN) assessment is used to measure your project progress.

(*Double click on the ‘RAG STATUS’ box below to edit the table, then use the drop-down menu to select a status. The table will then populate according to the status you’ve selected. Click anywhere outside of the table to exit edit mode)*

 *If your RAG status is AMBER or RED please identify the issues in the table below, expand columns if required to enter more text.*

1. **Issues:**

|  |  |  |
| --- | --- | --- |
| **Description/s** | **Progress** | **Current RAG Status** |
| The imminent closure of the UWA campus in Second Life was a very real threat and a ridiculous thing for the university to do when it is a world leader and VR is becoming a hot topic. | Following lobbying we have managed to rescue two SIMS | Amber |
| <https://alisonjamesart.com/2017/03/05/the-university-of-western-australia-in-second-life/> |  |  |
|  |  |  |
|  |  |  |

1. **Summary of project progress to date:**

|  |  |  |
| --- | --- | --- |
| **Scholarship Conditions** | **Completion Date** | **Comments/Notes** |
|  |  |  |
| Resubmit dissemination strategy, particularly around sharing outcomes within UWA, prior to final funds being released.  Production of 3D models in virtual space |  | Due to needing to purchase a printer and the inability to purchase “half” a printer the second half of the funds were released on receipt of a dissemination strategy.  I have presented this work at the ANZACA (Australia, New Zealand Association of Clinical Anatomists) n Dec. 16. This was well received and I was asked to write an article for their newsletter (attached).  I ran a workshop at the NTEU National Conference in Melbourne on the possible workplace inpacts of VR and AR attended by representatives from all the universities across Australia.  I have demonstrated the equipment within my school to fellow academics and a number have come to try out the equipment.  We have started an AR/VR medical group to facilitate communication between those interested in AR/VR  I have attended a number of the AR/VR meetings run by Jonathan Knispel meeting in the Monadelphus centre.  I intend to attend the ANZACA meeting in Queenstown in December to present the advances in this work.  I have applied for Study leave in S1 2018. If I get it I plan to go to Taiwan to the HTC headquarters (I met their representative at a recent AR/VR meeting where she was looking for programs to add to the HTC Vive and was interested in our medical teaching programs). I also intend to visit Case Western Reserve University which is pioneering the use of the Microsoft Hololens in the teaching of anatomy.  <https://www.youtube.com/watch?v=SKpKlh1-en0>  (I met Dr. Drake – editor of the famous anatomy text “Gray’s Anatomy” at the meeting in Canberra, who is a lead anatomist at Case Western) I will also be visiting Manchester University who are pioneering the use of virtual reality in the treatment of chronic pain.  <http://www.cs.manchester.ac.uk/aig/areas-and-projects/virtual-reality-rehabilitation/>  With Michael Ovens we have produced the “exploding brain” as a prototype to use in group teaching. Using the HTC VIVE this simulates a brain broken down into its constituent parts. The students (in virtual space) have to reassemble the brain in 3D. |

*Include completion of pre-filled milestones & summary of your project key achievements to date.*

|  |  |  |
| --- | --- | --- |
| **Key Activity/Milestone** | **Completion Date** | **Comments/Notes** |
| *Carpe Diem attendance* |  |  |
| *Blogging* |  |  |
| *Register as developers with HTC and Microsoft* | Oct 2016 | Have gone further to actually meet with the HTC representative for VivePort the developers portal |
| Purchase and install HTC VIVE system | Oct 2016 | Done |
| Purchase and install Hololens system | Nov 2016 | Done |
| Contact Case North Western. | Dec 2016 | Met Prof. Drake in Canberra, study leave planned to visit Case Western |
| To introduce students to the system | March/April 2017 | Prototype “exploding brain” introduced to 156 ANHB2217 students in S1 |
| Production of the virtual patient | June 2017 | Planning stage, prototype models designed with Michael Ovens |

1. **Actions and outputs for the remainder of the project:**

|  |  |  |
| --- | --- | --- |
| **Key Activity/Milestone** | **Completion Date** | **Comments/Notes** |
| Production of the virtual patient | August/Sept 2017 | We are meeting with engineering next week to discuss collaboration on their virtual client. Michael Ovens has started work on the programming in Unity and is investigating commercially available avatars |
| To investigate the use of SDKs for 3D printing | November 2017 | We have made some prototypes, we have made contact with zoologists who are working out how to use the printer to make fake eggs to contain monitoring devices and a collar for hyenas to contain tracking devices. |
| To test scenarios with student groups | S2 2017 (Aug-Nov) | Teaching into MEDI2201 and DENT/PODI4107 in S2 |
| Write up and disseminate results | Dec 2017 | On completion of project. |

1. **Project expenditure to date:** Please fill in *Spent to date* section.

|  |  |
| --- | --- |
| **Funding received to date:** | $9,878.00 |
| **Second half of funding due after acceptance of this report:** | NA |
| **Total funding approved:** | $9,878.00 |
| **Spent to date:** | $8,911.00 |

1. **Projected expenditure for the remaining funds of the Scholarship grant**

*Please detail how you intend spending all remaining funds from your Scholarship grant. All costs are to be excluding GST. Please note also any faculty in-kind contributions, e.g. administration support, equipment or financial support. Please add columns if required.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Description** | **Justification** | **($) Total Cost** |
| **Casual Hire** | Michael Ovens Casual | Michael is the key programmer in this project - | $967.00 |
|  |  | Step 5 L1 22hours |  |
|  |  |  |  |
|  |  |  |  |
| **TOTAL (exc. GST)** | | | $967.00 |