

Dundee University TouAR - Mid-project Progress Report

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The aim of this project is to look at the following Research Question: *What impact does a Narrative Generation method of storytelling (based on Augmented Reality Interactions) has on overall User Experience?* More specifically: *“What are the effects of Augmented Reality Interactions on Narrative Generation?”* and *“How do Narrative Generation techniques affect User Experience?”*. The vehicle for this will be a mobile Augmented reality application, built around stories provided by the University Archives. The project brief was chosen by myself and refined with the help of Mike. I believe that it is a very interesting idea and I am looking forward to fully implementing it. My goals are to have a fully functional project, which could easily be used by anyone who visits the campus. As for the research itself, I am hoping to produce something good enough to be submitted to ICIDS (International Conference on Interactive Digital Storytelling). Academically, I am aiming for a high A, which would definitely secure me a first-class honours degree.

The work I have done so far has mainly revolved around the Literature Review section of my report. I have gone through every issue of ICIDS and its predecessors and have done other separate research on Google Scholar. I have saved over 70 relevant papers on Mendeley and OneNote and included 34 into my writing. I still have another 2 paragraphs I would like to include into this section, which will be done in the coming weeks. The current draft of the report is included as Appendix A. I have also applied for Ethical approval, which I managed to pass successfully. I have looked into the different technologies that I can use for the project. My current options are using Unity's AR Foundation or developing a native android application using Google AR Core. I have also organised a meeting with the University Archives in order to discuss my project.

My plan for the coming weeks is to begin the development of the project. I will at first make an application with each of my options for AR and decide on which one is better suited for the problem. I will also be going to the Archives for tours and other information which can support the project. From there on I will have to begin assembling the stories and looking into the possible narrative generation algorithms. The remainder of my Literature Review will be finished by the end of February. My aim is to be finished with the majority of the development by w.b. 16/03, after which I can start user testing. The experiments will be done by doing a short briefing, after which participants will be asked to use the application. In the end, there will be a short interview, which should hopefully be useful when answering the research questions. I will be using an A/B style test by splitting the campus in the most appropriate way (probably in old and new side). The narrative for one of the sections will be generated, while the other will be static. The interviews will then ask questions about the user experience. All interviews will be recorded and transcribed. I will then continue by writing out the rest of the report. I have included a basic Gantt chart outlining my plan for the rest of the semester as Appendix B.