ENGR 302 Final Project Report

Project Objectives

The main objective of Whiti was to produce a cost-effective and accessible tool that would revolutionise simultaneous interpretation. Whiti aims to provide a real time communications service that allows simultaneous interpreters to translate to a group of listeners through a device e.g. a laptop or mobile phone. Whiti needs to be deployed in a manner which makes it accessible to everyone - so a web application was identified as a viable option.

Summary of Project Results

We have produced a web application that can be hosted using a computer and is in a state where it could be deployed to a hosting platform. Whiti.co.nz allows users to create events which have restricted access through event codes. With these event codes, users can join an event as either an interpreter or a listener. When an interpreter joins an event they can immediately start transmitting audio and video if available. When a listener joins a room they will immediately start receiving the transmissions from the connected interpreter.

The web application also comes with some quality of life features. These features include a Feedback page that allows users to send feedback to our client and a Help & Support page that contains a tutorial on how to use Whiti.co.nz.

Delivered Scope

The delivered web-app can organise and manage rooms for interpreters and listeners to connect to. It can organise the transmission and receiving of data, using in part an exterior api to assist. It can send feedback using a custom configured email through the web interface. It can scale itself and adjust itself to work smoothly on a number of devices, with proper styling. Users can choose to receive audio or video or both, to help optimise the process and provide options.

Delivered Expenditure

$0.00

Project Self-Assessment

Overall the team was content with what we delivered. It is unfortunate that we were not able to deliver a completely stable transmission between the interpreters and listeners. However, we believe that we have identified what the issues are and what actions can be taken to resolve them. We are confident that we have produced an application that our client can use to demo to interested parties so that gain potential funding/further development.

Lessons Learned Summary

Over the course of the project we have learned many lessons related to project management. We learned that it is important to integrate our work often as we found when we went to integrate large components, they would not work well together and many changes had to be made.

We learned managing time was important specifically managing when we would work on the project. If we did not frequently set aside time to work on the project, we would often fall behind schedule and have to

complete a large portion of work at the last minute. At the point in the project when we needed to get a large amount of the development finished, we set aside certain times each week to work on the project so we wouldn't fall behind.

From using poorly documented technologies, we realised it is important to write quality documentation. This meant we made sure we documented our own system well so it will be easy for possible future developers to use.

Prioritising work we found to be important as if we spent more time than expected working on a deliverable that wasn't high priority, development of more important deliverables would be pushed back. We handled this by working on the highest priority deliverables in our backlog first.

We learned to write detailed minutes during meetings so we had a record of all the topics discussed. Early in the project some details from meetings would be forgotten so intended progress would not be made on that item and it would be pushed back to the following meeting.

We also found it important to break large amounts of work into smaller work packets so we could manage tasks more easily. It was easier to predict how long it would take to complete many small tasks rather than one large task.

Procurement Summary

Which deployment do I want to use?: If you are only deploying it to the people on the same wi-fi network, for example at a conference or on a small scale to explain how the system works, you will only need the procurements for all deployments and can ignore the procurement for external deployment section.

Procurements for external deployment: In a larger scale deployment of the system, a https certificate would be required, the procurement of which would depend on which service the client chooses to deploy it on. For deploying locally this is not required, as this is handled by the pyopenssl library. Server space may also be used but this is at the discretion of the client

Procurements for all deployments: A virtual environment with a the required set of libraries, all of which are at no cost to acquire is required to run the local deployment. A guide for how to deploy, and install this has been provided.

Transition Plan

The server software will simply be supplied to the client via a USB flash drive. There are files to assist with running the server without needing much technical knowledge. There are multiple documents alongside various sections of files, as well as more technical documentation within the code itself as comments. These have the technical information needed to pick up the project and develop further.