Project Pitching Meeting

July 2nd @ 11 AM Eastern/8 AM Pacific

Question	Answer
Purpose?	provide transparency and background on research topic, permit members to ask for missing info
Who presents?	the member who submitted a research topic for consideration
How long?	< or = 5 minutes/research topic
How to prepare?	Create slides and send to Mark Sage by July 2nd
Who listens?	All AREA members (as many as possible)

OFFERING FEEDBACK or EXPRESSING PREFERENCES WILL NOT BE ALLOWED

End-user acceptance of AR applications

- Category: End-User Acceptance Testing

Problem this Research Would Address (1 of 2)

- A barrier to widespread adoption of AR is the lack of tools available for development teams to receive and process end-user feedback.
- To be considered: An application plugin (Unity) which can be used to collate and collect user feedback. Leveraging AR devices which offer eye tracking and speech input to add gaze context to user feedback.
- PROBLEM: There are powerful tools present within the latest AR hardware which are not being leveraged, to their fullest extent, for user acceptance.

Whose problem would be addressed?

- *Providers of enterprise wearable AR software/hardware platforms* would be able to more quickly/reliably
  - Assess user feedback and reduce the number of development cycles.
- *Regulatory agencies or groups* would
  - Get valuable feedback regarding user experience based on design decisions influenced by regulation. Aggregate datasets could be analysed to inform design frameworks and policy.

How would this research be conducted? (1 of 2)

1. Work with relevant AREA research committees and stakeholders, human factors, standards etc.. To define scope and agree software specification.
2. Develop a Unity plugin which can recognize a trigger word and enter into a ‘comment state’ and begin recording and segmenting user speech.
3. Define a process for obtaining Unity component data based on the direction of the user’s gaze within the application.
4. Create a suitable method for formatting and exporting the resultant dataset e.g. JSON text file…

How would this research be conducted? (2 of 2)

5. Review the use of the tool within an existing Unity project. This could be achieved with either an existing AMRC Unity project or an AREA member volunteer's existing Unity project.
6. Document the tool and release software plugin to AREA members. Document the installation process of the tool within existing Unity projects. Provide a user guide for area members to exploit the functionality.

Benefits to AREA Members

- AREA members will be able to more quickly develop and deploy software and/or hardware.
- Long term impacts of this research: The proposed output dataset could pave the way for powerful tools. For example, data can be aggregated and analysed to influence design frameworks and policy. Significant quantities of data could be used to train machine learning models, the output of which could be used to guide designers during development.