Abstract

Exploreapollo.org serves as an effort to create a web app that provides an engaging way for visitors to educate themselves on and explore the Apollo 11 mission and its participants. The app is an interface to a massive corpus of files containing the full audio of the Apollo 11 mission. Split into many separate channels, it documents the perspectives of almost everyone involved, from mission control to the command module. With the backend for the app already mostly developed going into the project, this semester's team members focused on improving usability and increasing visual appeal to visitors of the site while also adding features that create a more intuitive user experience.

Architecture

The project is separated into three separate modules. The front-end, the API server, and the audio control server. The front-end uses web technologies to display the user interface to listen to the audio and communicates with the API server. The API server communicates with the database. Finally, the audio control server communicates with the database and S3 to get the audio files. The audio files are then streamed to the front-end.

Impact

Explore Apollo is the first software platform to make use of the recently fully digitized audio of the Apollo missions. We’re providing a simple interface to interact with the eleven thousand (and growing) hours of audio that has a lot of historical, research, and educational value. We add additional value to the raw audio by creating ‘moments’ and ‘stories’ as a means to organize the audio into a meaningful format. This system will be able to be used by researchers studying interactions between various people, group those interactions together, and be able to share and reference those interactions with colleagues.

Metric

This semester’s goal was to improve the usability of the platform compared to its previous state. To test the success of this team’s efforts, a feedback form was created. Visitors were asked to rate the usability of the site from 1-5 both before and after the team made their changes. Earlier results yielded a mean score of 4.27, whereas later surveys showed a mean score of 4.63 demonstrating an ~8.4% increase in perceived user-friendliness.

Results

Live Demo Application

https://app.exploreapollo.org

Contribute on GitHub:
https://github.com/UTD-CRSS
Pull-requests accepted!