Explore Apollo

Discover the stories within the missions

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Abstract

Explore Apollo is an interactive website for listening to audio from the Apollo 11 mission and allows you to curate your own stories you’ve discovered within the Apollo 11 mission audio. NASA recorded tens of thousands of hours worth of audio during the mission. Much of this audio has a lot of value in terms of history and research, but is difficult to know what is valuable due to the large volume of data. Our mission is to create a simple way to find and share those key moments of the Apollo 11 mission using web and audio technologies.

Results

Display: Lunar Landing

Story

We created open source projects for each module of the system. We established the beginning of a platform to interact and visualize the audio from several NASA missions. To organize this information, we break down the massive amounts of audio into ‘stories’ and ‘moments’. Moments are segments from the mission which can show the transcript and any other analysis data we have for that particular moment in time. Stories are simply a collection of moments that have been put together due to their relevance or topic. The current platform is just a way to interact with the already curated audio from the mission. The next stage of the platform will include allowing users to create their own curated stories.

Impact

Explore Apollo brings the “behind the scenes” efforts of the Apollo team to a much more accessible light. From education to archiving history, Explore Apollo brings thousands of hours of audio into a digestible format for users of all ages to enjoy. By digitizing analog audio, we have effectively created a universally accessible library of audio to many different platforms, be it mobile or desktop. Explore Apollo’s ease of use makes it perfect for any environment, from elementary education to simple at home curiosity.

Architecture

The project is separated into three separate modules. The front-end, the API server, and the audio server. The front-end uses web technologies to display the user interface to listen to the audio and communicates with the API server and Audio Storage. The API server communicates with the database and Audio Server. The audio control server communicates with the database and S3 to get the audio files. The audio is cached by the API server to the Audio Store. Finally, the client requests the audio files from Storage and they are sent to the front-end.

Summary

Explore Apollo is the first system to make use of the recently fully digitized audio of the Apollo missions. We’re providing a simple interface to interact with the tens of thousands of 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, as well as to help students, mainly grades 1-8, interact with the Apollo missions.