# AWE Deep Dive Report and May 2021 Plan

In the first year of the AudiAnnotate AWE project we tested our hypothesis on how AudiAnnotate should work, worked with four scholars to publish AudiAnnotate-driven digital companions to thesis chapters and classroom lessons around sensitive audio material, shored up the software functionality supporting a single, basic audio or video digital edition, held workshops to try the software with a variety of users and materials, and conducted "deep dive" interviews to assess needs with our partner holding institutions.

The discussion that follows is a summary of what we learned from these interviews and a discussion of priorities for the coming year based on that input.

As the document transitions from stakeholder notes and observations to actual features that need to be built, there are references to "points". Story points are part of the Agile software development methodology; as Atlassian explains: *Teams assign story points relative to work complexity, the amount of work, and risk or uncertainty. Values are assigned to more effectively break down work into smaller pieces, so they can address uncertainty. Over time, this helps teams understand how much they can achieve in a period of time and builds consensus and commitment to the solution. It may sound counter-intuitive, but this abstraction is actually helpful because it pushes the team to make tougher decisions around the difficulty of work. We use story points to help communicate the relative work for each feature and prioritize that work.* 

## Use Case Needs Assessment

The needs assessment below were derived from "deep dive" interviews to assess needs with our partner holding institutions. The bulleted lists reflect potential uses of AudiAnnotate at each holding institution.

# Furious Flower Poetry Center

Furious Flower Poetry Center, at James Madison University, is the first academic center for Black poetry in the United States

As part of the AWE project, a Graduate Research Assistant in the English Department at the University of Texas at Austin will work to coordinate and encourage instructional use and access of audiovisual materials in the Furious Flower Poetry Center (FFPC) at JMU, to explore responsible and ethical data-oriented practices with audiovisual materials, and to engage in conversations around mentorship, sustainability, and ethical data work.

<sup>&</sup>lt;sup>1</sup> https://www.productplan.com/glossary/fibonacci-agile-estimation/

These depend on features in AudiAnnotate which should be ready in the Fall of 2021.

- Library Exhibits
- Class Projects

#### Harvard

Our partnership with Harvard University is focused on the use of publicly accessible audiovisual materials in the Woodberry Poetry Room.

- Exhibits to highlight timely topics
- Various types of annotations, including:
  - colloquialisms
  - o audience interaction
    - show laughter
    - social context
  - o links to related materials like Harvard Crimson, etc, reviews & photos
  - o oral histories of audience members
- Conversational Annotations
- Transcription Improvement
  - If Harvard uses the Fortunoff tools to upload transcripts, that will probably serve their needs well.
  - Use Hypothes.is to fix/discuss the transcriptions in AudiAnnotate, then export from Hypothes.is to improve transcripts
- For Researchers(i.e.: performative analysis)
- Musical or poetical annotations, like pauses or comparative annotations

0

#### Fortunoff

In our Mellon grant narrative, we proposed a use case where a Fortunoff fellow at Yale is transcribing and annotating difficult concepts on a video of a Holocaust survivor's testimony. They are using Aviary, which allows for various levels of authenticated access to sensitive materials and is already implemented with the Fortunoff collection, to access the video and to make annotations such as providing links to a digitized manuscript mentioned by the speaker on the video at a Yiddish book center. Using AWE, Fortunoff Director Stephen Naron can harvest the annotations back into the Aviary, because as he describes it, "I can use researcher created annotations to enrich my own metadata records so that others can interact with these on an open source media player with linked annotations." This institutionally curated use case shows how AWE annotated video testimonies and transcripts, hosted by Yale Library and currently

restricted to fellows and classes, can be made available to future scholars after the annotations have been vetted by Naron. Further, because the Aviary DAM allows for group permissions, the annotations could be made available to a class of students who might choose to create additional student-curated exhibits that augment the annotations. Or, for a series of Holocaust interviews, students could annotate different speakers' descriptions of similar events and create playlists that play just those segments of each interview. The library could choose to display this class exhibit or, more simply, the students could make it available as a stand-alone report through GitHub. Because the AWE player recognizes the IIIF authentication API, users with recognized and permissible IP addresses would be able to play the AV object in the project. Unauthorized users would see the annotations but not have access to the sensitive materials.

Most Fortunoff use cases depend on being about to import manifests and annotations from Aviary. Currently the annotation import is scheduled for **Spring 2022** 

- Critical Edition Series
  - intro essay
  - o full video & transcript
  - o transcript is annotated
  - o there may be a reuse use case
    - i.e. reusing annotated terminology across transcript
  - Another potential use case would be pulling subsets of 3 interviews into one presentation or linking between them
    - i.e. interviews with 3 siblings (implementation: bring items and annotations from Aviary into a single AA project, then use that as a student workspace)
    - Aviary lets you link to a timestamp of another video in an annotation
- Edited Testimonies
  - A subset of the project for publication
  - o intended for the classroom use case
    - Would like to interact with existing annotations/transcripts
  - Hosted on Youtube or Aviary
  - o can't download transcripts

# Library of Congress

Our use cases with the Library of Congress focus on working with <u>LC Labs</u> to encourage use and access of AV materials. In particular, use cases with LC Labs focus on use and improvements to the <u>Federal Agencies Digital Guidelines Initiative</u> (FADGI) and <u>BWFMetaEdit</u>.

We believe that the FADGI/BWFMetaEdit use cases are supported by existing functionality, so we can move ahead in **Summer 2022** 

- Uses for Researchers
  - to present
  - to carry from place to place

- sharing & collaborating
- Uses for Staff -- FADGI Use Case
  - o Add time stamped annotations to Cue points field in BWFMetaEdit
  - Use AudiAnnotate as a collaborative workspace
  - Once the annotations are adequate, BWFMetaEdit could import them either from WebAnnotations produced by AudiAnnotate or from the source CSV files produced by Audacity

# **Features**

The bulleted lists below indicate potential AudiAnnotate features that would support the use cases above.

### **Furious Flowers**

- Wikidata -- easy reference form. (e.g. Referencing mentions of streets in Berlin, Or a op-up card)
- Compare & Contrast multiple performances
  - Side by side
- Organization landing pages
  - Github org
  - Tag repos
  - Pull member repos

#### Harvard

- Textual Variants
- Comparisons
- linking annotations (i.e. same line in different recordings)
- They'd like to replicate the "Spirit of collaboration and collective engagement that was present at the reading"

#### Fortunoff

- Conversational annotations
- OHMS (or Web Annotations) as potential annotation import format
- Snippets & Playlists
- Annotate Annotations

### Commonalities

While few interviewees mentioned "exhibits" they all mentioned things like "topical and timely mentions" (Woodberry) This confirms the basic concept of AudiAnnotate. There are ways to double down on this idea; in particular Stephen at Furious Flower thought about organizational landing pages. Could we do these within a github organization? Could all repos in an organization be linked to a centralized list/landing page?

While some stakeholders like Stephen at the Furious Flowers archive asked outright for a side by side compare & contrast feature, others like the Woodberry asked for things like "textual variants," "linking annotations" and "comparisons."

## Enhancements from Github

During the course of this semester's work, the following team requested the following enhancements that are not covered elsewhere in this document.

- Support two different content blocks in item pages
- Playing a Portion/Clip (aka "snippet") of Audio in Player
- editing annotations
- sort by length of annotation section
- turn off/on layers

## Features from Grant Proposal

Proposal wording	Notes
Allow users to index material in generated editions.	Covered in mockups
Reusable library to convert Fortunoff word docs into WebAnnotations, integrated into AudiAnnotate web app and integrable into Aviary server	To be extracted from Aviary codebase by us
Reusable Jekyll theme for AudiAnnotate digital editions, including documentation for customizing look-and-feel, navigation, and viewers.	
Play all annotations on screen	Discuss whether/how this is included in new Jekyll theme
Deep Dive interviews & write-up	This document
Provide annotation discovery service as API in AudiAnnotate web app, allowing clients (like Aviary Server) to discover scholarly	Not discussed in mock-ups below

annotations about media files.	
Reusable library to convert OHMS XML to WebAnnotations, integrated into AudiAnnotate web app and integrable into Aviary server	Amend work plan? Reuse for other priorities?
Support playlists based on common annotations, playing segments of media associated with common annotations.	Discuss whether this is covered by comparator or index feature in mock-ups (2022)
Export existing annotations to Audacity and re-integrate them (after updates) to the edition.	Is this covered by saving the original files? (2022)
Export existing annotations to OHMS-XML and re-integrate them (after updates) to the edition	Amend work plan? Reuse for other priorities? (2022)
Embed Aviary Viewer in generated digital edition sites	(2022)
Handle restricted content gracefully in generated sites via the authentication API.	(2022)
Support distributed collaboration among editors of multiple editions. Allow researchers to discover and import annotations from other AudiAnnotate repositories or Aviary servers to incorporate into their editions.	Probably combined with below (2022)
Import annotations into AudiAnnotate from Aviary (or another annotation store)	Bert would <i>love</i> for us to do this now. (2022)

# Conclusions

In order to meet the needs of our stakeholders, the AWE team, and the grant proposal, we should consider focusing our next development efforts on the following.

# Jekyll template

- Points 15
- A scaffold off of which to hang the various user interface features needed to enable our stakeholders and users of AA.

- Reduce technical overhead by updating projects "in place". In other words, when someone adds to or changes an AudiAnnotate project, any changes to the AudiAnnotate Jekyll template will be picked up by the Github build.
- Over time, we'll develop additional screens. Potential additions are in the "Screen Types and Mock-ups" section.

#### Conversational annotations

We'll stick with Hypothesis for "annotations on annotations", although we should investigate:

- Turning on public annotations automatically on AA generated sites. (i.e. "click to see conversation). 1 point
- •
- Importing Hypthothesis annotations into first-class A/V annotations on the manifest. 3 points
  - This is very similar to the grant line item "Import annotations from Aviary". If done together, they both could be done for less than each individually.
  - Instead of implementing this in AudiAnnotate, see if you can export Hypothesis annotations as a CSV and teach folks how to reincorporate them into their project via documentation.

#### Rich Annotations

When importing & displaying annotations to an AA project, expand the richness of those annotations. Furious Flowers mentions pop-up wikidata cards like you see on Streets of Berlin or Linked Jazz. Woodberry talks about linking to articles in the Harvard Crimson about a particular poetry reading.

- Html links (sorta works, needs testing. Includes wikidata links). 1 point
- •
- User/attribution (Either let the uploader add a "user" column to the annotation spreadsheet or type in a user when uploading.) 1 point
- Tags (for indexing) (see index for points).

Do we do pop-ups for pages or wikidata links in uploaded annotations? Can we facilitate wikidata lookups?

#### Index

Points: 7

This was included in the original grant proposal, but was not mentioned in any of the deep dives.

#### Implementation Steps:

- Support a new column in the uploader for tags
- Transform the tags to web annotations
- Display tag in jekyll template annotations
  - Modify loop code to display tag

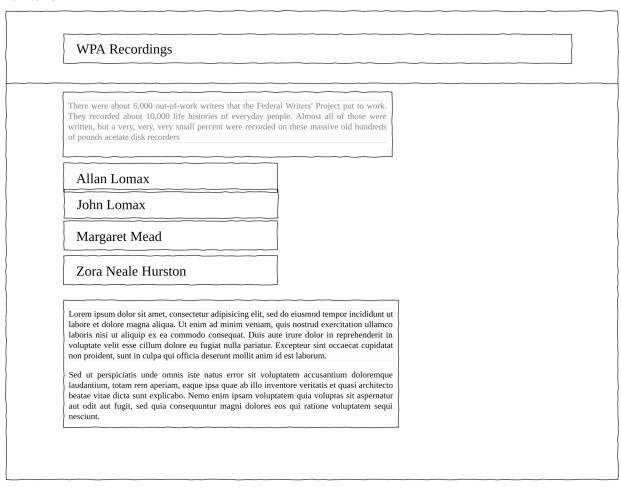
- Index layout (see mock-ups)
- Index term screen layout (see mock-ups)

# Screen Types and Mock-ups

This section details several different types of screens; each one of which may include a description and mock-up, as well as line items from above requirements which they may address and implementation notes.

# Organization Homepage

#### Points: 5



The organization home-page (suggested by Stephen at Furious Flower) lists AWE projects that are repositories owned by an organization, allowing independent projects to be aggregated.

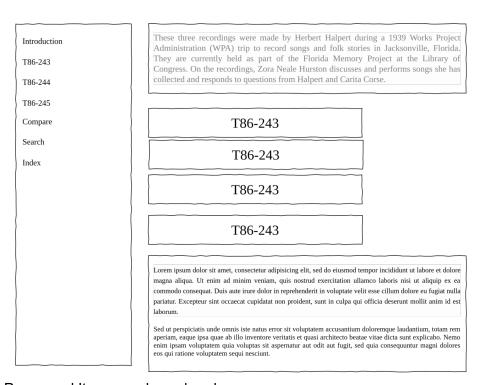
#### **Optional Features:**

- Descriptive text per project +1
- Essay Pages +1
- Ordering of Projects/Pages +1

# **Project Homepage**

## Points included in Jekyll Template

Zora Neale Hurston's WPA field recordings in Jacksonville, FL (1939)



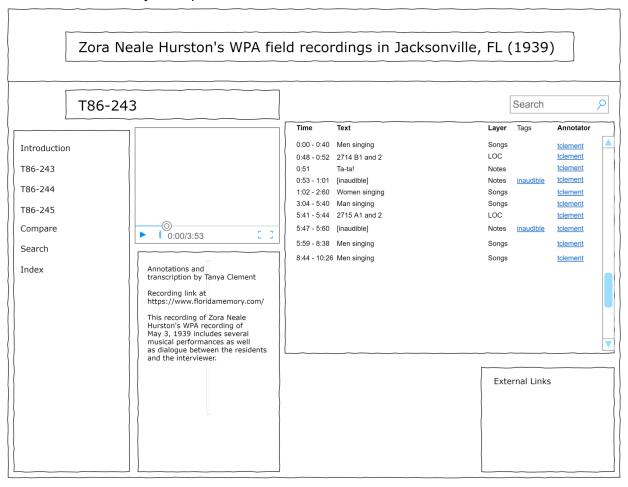
Pages and Items can be ordered.

Does this page need the navigation links? If not, where do we put links to the Index or Comparison Tool?

Should we include links to the organization page (if there is one)? Should there be a footer?

# Item Screen

## Points included in Jekyll Template



# **Essay Page**

## Points included in Jekyll Template

Zora Neale Hurston's WPA field recordings in Jacksonville, FL (1939)

#### **Audio Artifacts**

# Introduction

T86-243

T86-244 T86-245

Compare

Search

Index

These three recordings were made by Herbert Halpert during a 1939 Works Project Administration (WPA) trip to record songs and folk stories in Jacksonville, Florida. They are currently held as part of the Florida Memory Project at the Library of Congress. On the recordings, Zora Neale Hurston discusses and performs songs she has collected and responds to questions from Halpert and Carita Corse.

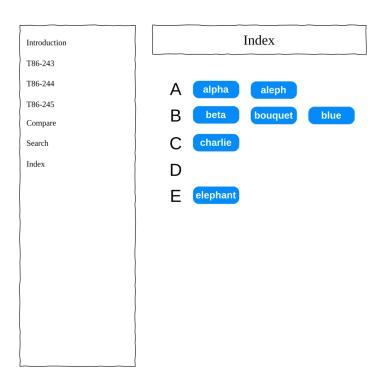
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit amin id est laborum. Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

This page is basically a blank markdown page. That means a creator can do a lot of things in it using markdown. For an example in the current version of AudiAnnotate, see <a href="https://bethanycayeradcliff.github.io/sensitive-audio-lesson/formatting-audio-annotations-for-audiannotate">https://bethanycayeradcliff.github.io/sensitive-audio-lesson/formatting-audio-annotations-for-audiannotate</a>

## Index Screen

#### Points are included in Index

Zora Neale Hurston's WPA field recordings in Jacksonville, FL (1939)



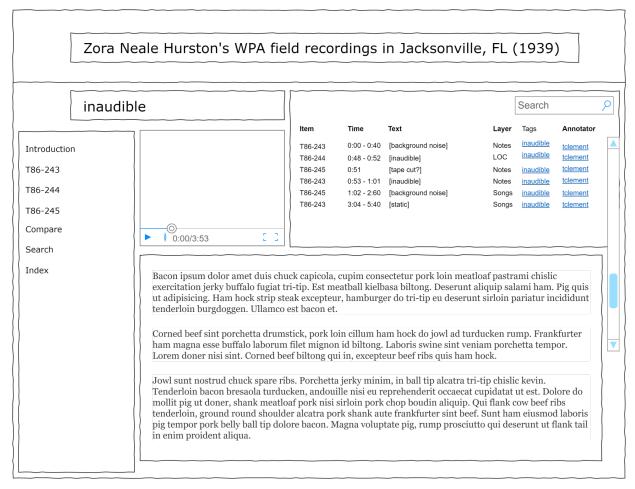
This requires support for tagging individual annotations.

Should the tags show up in the navigation bar? Maybe if there is fewer than X (10?) We're thinking we just index the A/V items, not any text. (How would we tag text?)

We should handle terms with essays differently from terms without them. The essay terms should be first-order pages appearing in the site navigation; the index terms without essays (as well as those with) should appear on the index screen contents.

### Index Term Screen

Points are included in "Index".



The results of clicking on a tag in the index, displaying the annotations with that tag, playing any A/V material from the project.

If an essay is associated with this tag, the essay is displayed under the player & annotations.

# **Snippets Screen**

Used for highlighting a section of AV material on one or more items.

The Configuration screen in the AudiAnnotate Web Application would have:

- Item 1
  - Choose Item 1
  - Start time
  - o End time
  - Layer (optional) -- to select a subset of annotations
  - Tag (optional) -- to select a subset of annotations

A snippet might be a component re-used on the Jekyll site. It should contain the entire A/V item, but should start and stop at the timestamp defined during configuration.

Possible use of snippets include a version of the comparison screen (letting a reader see the same stanza of a poem performed in different recordings) or a snippet-specific screen (like the Item screen, but only displaying A/V material and annotations from the timestamp).

We would need the ability to place contextual essays before and after different snippets (or set of snippets?).

Snippets only really work if our AV player supports pausing at the end-point of a snippet. Will Aviary? Will UV?

### User Screen

Points: If we do indexes, this is 2 points. If we don't then this is 5 points.

This would look like the Index Term Screen, above, except instead of showing annotations that are tagged with a certain index term it would show annotations by a certain user.

This one might be useful for pedagogy or viewing contributions by a single person.

How does the web app know which user to attribute an annotation to?

- Accept an Annotator column in uploaded CSV files, similar to the existing label column
- Prompt the uploader to enter an annotator value to be used for all annotations in the uploaded file, similar to the existing label prompt
- Allow the uploader to leave the annotator blank.

# Grant Deliverables (without Mock-Ups)

### Fortunoff Gem

3 points

Reusable library to convert Fortunoff word docs into WebAnnotations, integrated into AudiAnnotate web app and integrable into Aviary server

#### **OHMS** work

#### 0 points

- Reusable library to convert OHMS XML to WebAnnotations, integrated into AudiAnnotate web app and integrable into Aviary server
- Export existing annotations to OHMS-XML and re-integrate them (after updates) to the edition.

## Discovery

Provide annotation discovery service as API in AudiAnnotate web app, allowing clients (like Aviary Server) to discover scholarly annotations about media files. 2022. 5 points

### Other Features

Play all annotations on screen

- This needs definition
- Discuss whether/how this is included in new Jekyll theme
- Likely this becomes part of the index work
- Requires the ability to "pause" the player -- either UV or Aviary's -- programmatically.

Support playlists based on common annotations, playing segments of media associated with common annotations.

- Covered by the mock-up of indexing & snippets
- (2022)

Export existing annotations to Audacity and re-integrate them (after updates) to the edition.

- This is covered by saving the original annotation files.
- Need to document how to find and reuse original annotation files.
- (2022)

Embed Aviary Viewer in generated digital edition sites

• 5 points

Handle restricted content gracefully in generated sites via the authentication API.

Aviary's player will support this.

- 2022
- 1 point

Import annotations into AudiAnnotate from Aviary (or another annotation store)

• 3 points

Support distributed collaboration among editors of multiple editions. Allow researchers to discover and import annotations from other AudiAnnotate repositories or Aviary servers to incorporate into their editions.

- Covered by documenting how to find and use original annotations files
- Covered by Github collaboration models.

# Appendix A: Open Questions

What should we do about structures?
What is the interaction between Aviary and AudiAnnotate?

# Appendix B: UI Elements

- Navigation Bar
- Title
- Text Block
- Item/Page List
- Player
- Annotation Block
- Annotation Block w/Items
- Drop down item selector
- Index List

# Appendix C: Out of Scope Features

# Comparison Screen

Points: not available yet. We need to spend more time discussing this.



No automatic syncing between 2 items.

# Configuration

- Users choose "New Comparison", then are prompted to choose/create two snippets
  - Choose first item from existing items
    - Set start/end times
    - Choose layer
    - Choose tag
  - Repeat for second item
- This creates a page on the Jekyll site in the project repo and shows the user how to edit the content blocks.