Table of Contents

July 11th 2024 - Mock-Up Features	3
July 9th, 2024 - Daily Check-in	3
July 8th, 2024, Al Planning Framework	3
July 3rd, 2024 - Daily Check-in	4
July 2nd, 2024 - Daily Check-in	4
June 28th, 2024 - Daily Check-in/OPTIONAL Javascript working session	5
June 27th, 2024 - Optional UI Coding Session	6
June 26th, 2024 - User Interface Working Session	8
June 26th, 2024 - Code Review	10
June 26th, 2024 - Accessibility Consultation	11
June 24th, 2024 - Group Check-in	12
June 24th, 2024 - Lab & Daily Check-in	13
June 21th, 2024 - Daily Check-in	14
June 18th, 2024 - Daily Check-in	15
June 17th, 2024 - Intern Meeting	17
June 17th, 2024 - Lab Meeting	18
June 14th, 2024 - Daily Check-in	19
June 13th, 2024 - Daily Check-in	20
June 12th, 2024 - Daily Check-in	20
June 11th, 2024 - Daily Check-in	21
June 10, 2024 - Group Meeting	23
June 10, 2024 - Quick Check-In with Brian	24
June 10, 2024 - Labs Meeting	24
June 7, 2024 - Daily Check-In	24
June 6, 2024 - Daily Check-In	25
June 5, 2024 - Department Wide Meeting	26
June 5, 2024 - Daily Check-In	26
June 4, 2024 - Mini-Meeting Amongst Each Other	27
June 4, 2024 - Group Meeting	28
Working Project Pitch: June 3, 2024 - Lab + PLOI	29
Work Plan	32
Notes: June 3, 2024 - All-Staff Lab Meeting	34
Discussion about our project	34
Intern Meeting + Brian	35
Notes: May 31st 2024 - Morning Meeting	36
Notes: May 30th 2024 - Project Audience Pt. 2	38
Notes: May 30th 2024 - Morning Meeting	38
• The heart of collage is cutting. When using ML, technology would be used to	38
Notes: May 29th 2024 - Project Audience Pt. 2	40

Summary	40
Gamification of Library Materials, Retro RPG	40
Notes: May 29th 2024 - Morning Meeting	43
Notes: May 28th 2024 - About Project Audience + Idea Brainstorm	43
Summary:	43
Here's an overview of the ideas we explored and also our notes:	43
General Meeting Notes:	44

July 11th 2024 - Mock-Up Features

• KEY FEATURES:

- Button linking to AI documentation/AI documentation pop-up
- Link to original image, image title/description pop-up
- Save collage button
 - Format \rightarrow jpg, pdf, etc
 - \blacksquare Scaling \rightarrow pixels, width
- Undo/redo
- Image shuffle tool
- Clear/restart button
- Series of backgrounds to shuffle through

• BONUS/NICE TO ADD FEATURES:

- Color/paint tool + Eraser tool
- Image filter tool (search bar using metadata tags)
- Prompt button
- Order/Arrange images button (aka bring to front, send to back)
- Title page (button to select the type of background, button to link to AI documentation)
- Upload your own image as a background
- Different frames

July 9th, 2024 - Daily Check-in

- Translate Contents of the worksheet to a broader audience.
- How the content can transform into actual design features.
- Identify Priority Features to implement

July 8th, 2024, AI Planning Framework

- Data Processing Plan
 - Thoughts on the dataset annotation
- Phase II Feedback:
 - Abbie mentioned that they are looking to adapting the sheets for an approval process.
 - o Different Agency goals which is a higher-level management type of thing.
- Phase III Feedback:
 - o 90 Day pilots, demos, or user groups to see if it meets the quality standards.

 \cap

- Potential harms from the project.
 - Creating guardrails for this 'engagement' type of activity.
 - We want to be considerate and explain what we are doing and why.
 - o CRS: does the review of the tools and see if there are duplicates from the tool.

- Worksheets help you identify what quality means, in regards to commercial AI software.
 - Our tool is not trying to give people an authentic standard/record. It is demonstrating creativity.
 - Our quality standard is different, but we still need to have guardrails.
 - CRS has a high standard.
- Responsible, Practicable, and Effective—Guiding principles.
- Feedback
 - Abbie like the principle of an 'enjoyable experience'
 - Wants us to describe our principles and identify our goals.
 - Confidence scores
 - Embed transparency!!

July 3rd, 2024 - Daily Check-in

- Josh's Comment: "Are all the images IIIF enabled? if so, /full/full/0/default.jpg will always pull the largest you don't even need the manifest I don't thinnk"
- IIIF would work
 - o https://www.loc.gov/item/2023632670/
 - o https://www.loc.gov/item/2023632670/manifest.json
 - o https://iiif.io/
 - o https://projectmirador.org/
 - o Example
 - https://www.loc.gov/item/sanborn03573 004/
 - https://www.loc.gov/item/sanborn03573 004/manifest.json
- Add wait period to script to help with API limits
 - o Try sleep()
 - \circ Caching responses \rightarrow saving to a json file to not hit API everytime
 - Try pickle files → will be smaller but harder to inspect the file if there are any issues

July 2nd, 2024 - Daily Check-in

- Deliverables
 - Workflows
 - Outputs from the Workflows
 - o Evaluation
 - AI planning framework

0

June 28th, 2024 - Daily Check-in/OPTIONAL Javascript working session

- Session will be recorded.
- Some JavaScript frameworks/libraries
 - o React js
 - o Vue js
 - o Svelte js
 - Vanilla → no frameworks/libraries
- JavaScript modules → can use import statements for js files

June 27th, 2024 - Optional UI Coding Session

- Sectioning data: <div> v
 - is stylized sectioning
 - <div> is for placing things
- Components → interactive
 - Happens in the site but doesn't take you to another page \rightarrow

 button>
 - Hyperlink <a ref> when taking to another page
 - \circ Radio buttons \rightarrow like drop down but seeing options all at once
 - o Drop down menu
- <nav> → navigation menu
- $\langle h\# \rangle \rightarrow \text{headings} \rightarrow \text{increments for font style}$
 - Each page should only have on <h1> heading
- <id> v. <class>
 - o <class> is universal
 - <id>inherits from class + has unique qualities
- $\langle alt \rangle \rightarrow alt\text{-text} \rightarrow for screen readers$
- $\langle \text{title} \rangle \rightarrow \text{see text when you hover over an image}$
- All form elements should have a <label> for accessibility purposes
- <div class="canvas-wrapper"
 - kept separate from <div id="canvas"> for logic and accessibility reasons
 - Putting in <div id="canvas"> would make it harder for screen readers
 - You also want to keep static and interactive pieces separate
- You can do variables in css:

```
:root {
          --text-color: color;
}
Then →
.tools {
Font-color: var(--text-color);
}
```

- So now you only need to change the color in one place.
- Centering text behaves differently from centering elements/items
- Use rem (relative sizing) for text for accessibility reasons → can change proportional to screen size when zooming

• Resources:

- o W3 schools
- o Mdn (mozilla firefox) web docs
- o Iconify.design
- o Normalize.css style sheet → make style consistent across browsers
 - Creates defaults → add to wb project folder

0

June 26th, 2024 - User Interface Working Session

- Going through mock-up for adjustments to UI:
- Title \rightarrow coming up with one
 - o Ilayda: "Hidden Histories" doesn't really fit anymore
 - o Brian:
 - How are we describing the project?
 - What stood out to people as we've been sharing the project idea?
 - Either a title that descriptive or one that's clever \rightarrow at the very least a title that's descriptive
 - Ideally both
 - Wordplay?
 - Memorable–unique words or alliteration are two ways to do this
 - Task: brainstorm some titles
 - Key points of the project: collage, exploration, learn through play, AI
- AI button linking to separate page, being an intro to the project
- How many backdrop options? Animal crossing style, randomizes a sample of 3-4 backdrops for the user to look through (don't forget to link to original image in LOC site)
- The collage interface:
 - Ilayda: photos bar on the right needs work, using a dropdown menu for categories, a scroll bar to go down through images, and a search bar to go through metadata tags and filter images
 - Aisaiah has experience developing icons for the tools bar
 - Aisaiah and Shauna-Kay: Canvas is very small, might want to adjust layout so canvas is larger, or add a zoom button
 - "Border radius to clearly define components"
- Putting filtering & searching in the backlog to add down the line (possible next steps)
- Brian: leaning into more simple interface, instead of scroll, paging through the images or a button to randomly select 10 images
 - Minimize surrounding panes to highlight canvas keep panes as small as possible while trying to preserve legibility
 - Shauna-Kay: "I think there should be a menu bar where a user can always go back to our project description/use of AI and so on."
 - Add undo-redo in tools menu
- Thinking about the image → metadata → drag and drop mechanic/process and flow
- Could have a subset of the tools as you drag and drop that gives the option to view the metadata of the source image
 - Could also add the button for rotate and resize there
 - Want to give users the ability to click on objects as they drag them onto
 - o hidden feature–pinch and rotate with two fingers

- Bounding box with handles for rotating & resizing with cursor
- Focusing on the collage aspect over the paint/artists' tools
 - o Include eraser/undo-redo buttons
- Randomized image selection for the photo menu simplest way
- What we're building will run entirely in the browser
 - Server not needed
 - Reduced complexity
 - Files placed in github repo and turned into a webpage
- Components
 - o HTML
 - o CSS
 - JavaScript
 - Focusing on HTML and CSS today
- Directions/order:
 - o Create UI folder
 - \circ node.js to create a simple server \rightarrow do preview on you local browser
 - node.js allows you to run JavaScript anywhere/ in a web application on the server
 - \circ Package.json \rightarrow publish a web project \rightarrow basically a manifest file
 - Express.js: simple framework for web development → indicate what version you are using in the package
 - Works similar to requirements.txt
 - o Install node
 - \circ Create server \rightarrow server.js
 - Indicate everything in UI folder is part of website
 - o Index.html
 - <head><Meta> metadata that shows up when site is shared
 - \blacksquare <head><Link rel => \rightarrow icon that shows up on homescreen
 - <body>
 - <header>
 - <main>
 - <div id="prompt-section" class="section">
 - o <div id="tools-section" class="section">
 - o <div id="canvas-section" class="section">
 - <div id="images-section" class="section">
 - <footer>
 - \circ CSS \rightarrow style.css
 - CSS Grid v. CSS Flexbox
 - Do parts of the interface have to be flexible?
 - If each part stays fixed, use CSS Grid

- Think in rows and columns
 - o <div class="row">
 - <div id="tools-section" class="section">
 - <div id="canvas-section" class="section">
 - <div id="images-section" class="section">
 - indicates a class
 - .row {Display: flexbox;
 - # indicates id
 - Can also refer to any element; just write element name
 Main {
 }

June 26th, 2024 - Code Review

- Make a new Workflow folder on GitHub with each of the python notebooks in order for the different steps getting the images and metadata, doing the object detection, doing the segmentation, and the packaging to create a manifest (output of the final notebook here is what the user interface uses)
 - these are the final scripts that people should use

0

- helps us clarify which notebooks are the ones we should be looking at and working on
- Another folder for Evaluations
- Organization & code structure should be intuitive
- Specify in README that early work is the explorations, being left for archival purposes
- In API step, save a section
- Save binary mask
 - Mask for each extracted object/subject with same naming convention
- Outputs:
 - Original image as thumbnail (480 px on longest side as jpeg)
 - Output of individual cutouts as png
 - Normalize the size of each cutout (max (re)size= 480 on the longest size)
 - Thumbnail of binary masks
 - Output of bounding box information as json, including four coordinates (normalized)
- Last step \rightarrow create manifest of all the different assets
- Question 2 about saving item json:
 - \circ Output metadata in step one \rightarrow saving item ison
 - Combine manifest with metadata in item ison

Metadata:

- o resource id
- o item_title
- o item url
- Subject headings (subject)
- Date
- Contributor names
- Description
- Alt text**
- Collection name (source collection)
- o Original format

Manifest

- Each row is an image/resource
- o Each image would have api metadata
- Have list of objects/segments
- Each segment will have file name of cut out and bounding box information
- metadata exploration in evaluation folder
- prioritize workflow, evaluations can be done in later parts of internship
- Prototype by end of next week is ambitious goal
- Implement workflow with smaller sample set of images

June 26th, 2024 - Accessibility Consultation

• Accessibility Review:

 $\frac{https://libgov.sharepoint.com/:w:/s/LIB-ITDDDigitalAccessibility/Ea7pTBe8p45CpPPXs}{1ZxbJ4Bltgs6H53az2tWF4WBYpBdA?e=21Emdh}$

- Color:
 - LOC brand manual for color, color contrast, & working with the logo
 - o fix color contrast with logo
 - o color contrast analyzer tool
 - o don't do orange & white color combo with small text
 - more readable fonts for instructions (avoid decorative fonts like Caveat for important text)
 - Look into accessible fonts!
 - Think more about the color palette & color contrast for the "paint" part of the collage consult with the Hub for good resources on this
 - No text smaller than 12pts in final product
 - No one color should or shouldn't be used; it's more about color combination & contrast (and how this may impact color blindness and other visual impairments)
 - Accessibility Consultation document pinned to lc-labs-j24 Slack channel

- Need to fix the LOC logo, but the rest of the color contrast is OK
- "lots of testing (perhaps with color blindness simulators and this tool as well) will be helpful!" - Emily
- o be mindful of color contrast and how colors look in greyscale
- How to accessibly highlight what aspect of an image will be extracted: Don't
 use color as a means to highlight/isolate information → think of shapes or perhaps
 a dotted line
- o add hyperlink to email & underline
- project should be navigable with a keyboard some people don't navigate with a mouse
- o add undo/redo button
- o need alt text for images need to consider best way to go about this because we are thinking of a high volume of images
 - comment: "I need to step out but regarding Brian's earlier question, I will circle back with Willa but I wonder if this requests exemption for supporting screen reader users and focuses on low vision, sighted keyboard users, etc."
 - Will this impact our quantity over quality approach?
 - Will most likely have to have both description and alt-text
 - Free-to-use collection has alt-text so we can just use those descriptions and build them into our interface; our task is to review the descriptions & add anything necessary
 - Figma has a guide on accessible prototype/mock-ups
- o list all of the image categories/options at the top
- Touch screen accessibility → buttons should be large enough for finger
 - Also applies to thumbnails and image cutouts
 - Also thinking about users with less digits
 - Touch and hold down; rotate icon popping up → versus relying on pinch and rotate

o Filler

0

June 24th, 2024 - Group Check-in

- Tasks: creating manifest file, visualizations for metadata, web dev beginner resources, AI risk assessment worksheets
- use the object detection labels (ex. model detects "people", "cars"), add them to the image's metadata, and then use that to sort images into different categories for user use (and to allow the user to query)

- To mitigate mistakes of the model: allow users to send feedback for incorrect model labeling
- Merge "cars", "trucks", "planes", etc into "vehicle" category supercategories
- Might have to remove complex images where shapes are distorted
- Shauna-Kay: AI Risk Assessment, Aisaiah: Use Case assessment, merging and pushing new files, Ilayda: Metadata visualization/exploration, project description, web dev beginner resources

June 24th, 2024 - Lab & Daily Check-in

- New Display Day Section within the Wiki for us to work on
 - Overall Project Description (~150 Words)
 - Individual Description (~150 Words each)
- Build on/ Update the Work plan description
 - o Include:
- Start on slides for Display Day (Deliverables due July 10th!)
 - Project scripts
- Merge the code and run the OD/S Models using the update resource IDs
- One-on-one halfway point meetings this week
- More focused meetings this week
 - User Interface/ Design Critique review UX before implementation
 - Code Organization/Documentation Critique
 - One part of the repo focused on the evaluation notebooks
 - Second part scripts to generate images for interface
 - Third part user interface
 - Design Accesibility Consultation
 - Setting-up Basic components of the Interface [tentative]
 - Decide whether or not we will implement interface using web technologies and divvy up work
- User experience/web accessibility resources → Ilayda
 - https://developer.mozilla.org/en-US/ → good place to start from a technical point of view
 - https://webaim.org/intro/
 - Brian will have live coding session
 - Create server
 - Html tool
 - Web browsing tool
 - Github pages
- Segmentation: Talk about the work that we have done up so far– keeping the weird examples as talking points for the

- Why did you choose people, cars, cats— are we comfortable with saying that this is limitation or what is the experience that we wanted to choose from the tool to create this meaningful experience.
 - Transparency: Allow users to explore the capabilities of the AI detection model.
 - Brian: Are there any additional prompts that can be used to support AI literacy to have the user think through the capabilities/ limitations— having the framing would mitigate issues.
 - Filtering and Categorization using metadata—likely will be OD label
 - could also be by dates, collection or by randomized shuffle (show the user 10-20 random images at a time?)
 - Thinking about some type of quality assurance suggestion: detect and segment 1000 images, select the best 100 (concerns w our own biases and the considerations of curation)
 - 4 things: 1) the scripts, 2) the evaluation reports, 3) risk assessment, 4) interface

June 21th, 2024 - Daily Check-in

- Brian has to focus on some tasks → mostly focused on catching up Josh Hadro on where we are in the process
 - Shauna-kay gave a general overview of project documentation and documentation on how the model works with our sample collection.
 - Ilayda gave walkthrough of mock-up and talked about ethical issues and how we've thought through that
 - Add notes for educators in the starting page frame prompts around educators?
 - o Aisaiah gave walkthrough of the image segmentation work
 - Post-processing tools: dilution and erosion (Josh mentioned something about expanding the "radius")

- start doing the AI worksheets
- Create outputs expected for the interface
- o quality/accessibility consultation for site next week
- Segmentation—transparent .png
- Bounding Box
- Generate Thumbnails for each of the images \rightarrow about 200 px or so
 - Image thumbnail SHOULDN'T have bounding box
 - Bounding box data will be in the manifest

 Manifest File – for each of these images, where this item comes from, date, basic metadata

Mock-Up Feedback:

[From us]

On Slideshow:

- Feature to cycle through background options (similar to Animal Crossing)
- Dropdown menu to choose image categories for collaging, filtering through metadata?
- Add a permanent prompt button on the sidebar of the collage screen to allow users to generate prompts
- Mark the images user has already used in their collage?
- Add save, undo, redo, resize, and zoom buttons to the sidebar
- Change color scheme? Orange might not be accessible

On Figma:

June 18th, 2024 - Daily Check-in

- Parameter to fill in gap and computervision algorithms that can fill in gaps.
- See how we could tweak the prediction.
 - Having a different set of parameters post-segmentation
 - See if we get it to work for a sample set, as a proof of concept. With a bigger dataset it would be working—
 - Tweak it (word of the day lol)
 - Make sure that we are not cutting up people in terrible ways—but normally images, as with collage tools, won't be perfect. Collages are not perfect.
 - Getting it to work on our different machine.
- Quantity and the model's performance and quality issue.
- It gets a little dicey when you start to categorize people | the subject heading should be helpful
- Fine with it just being fine at detecting people + the other categories
- Try to research collage artists or collage art.
 - Resources shared by Brian:
 - https://www.boooooom.com/?s=collage
 - https://www.thisiscolossal.com/?s=collage
 - https://en.wikipedia.org/wiki/Wangechi Mutu
 - Kara Walker
 - https://soheinishino.net/dioramamap
 - To inspire different collaging experiences/activities and aesthetics
- Having a constraint makes it easier for the algorithm to show

• Data workshop:

- \circ 10-11 \rightarrow breakout rooms \rightarrow all interns add to spreadsheet
- \circ Morning \rightarrow mostly the chat \rightarrow Shauna-Kay
- \circ Afternoon \rightarrow Activity \rightarrow nothing for interns
 - Share Outs \rightarrow 1 hour long:
 - Chats → Ilayda
 - What folks are saying → Aisaiah/Shauna-Kay
 - Categorize → Shauna-Kay
- o Discussion
 - Chats \rightarrow Ilayda
 - What folks are saying \rightarrow Aisaiah
 - Categorize → Shauna-Kay

June 17th, 2024 - Intern Meeting

- Clarification of roles
 - Will add individual tasks/issues to Github
 - o Ilayda:
 - Moving mock-ups from Google Slides to Figma
 - Changing image names to resource ID (tomorrow)
 - Object Detection Evaluation review
 - o Aisaiah:
 - Object Detection Evaluation
 - Segmentation testing
 - o Shauna-Kay
 - Data workshop spreadsheet set-up
 - Research interactive collage web tools
 - Bulk API scripting
 - Object Detection Evaluation review
- API working group tomorrow at Jun 18, 2024 11:30 AM EDT

June 17th, 2024 - Lab Meeting

- Jaime feedback on presentation: Related links on LOC page, implement similar functionality for hovering over images and being able to find related images/posts
 - o Also: repo for speculative annotation project, innovator created an ethical rubric
 - Consider ethical ramifications of coloring/cutting part of collage tool
 - https://github.com/LibraryOfCongress/speculative-annotation?tab=readme-ov-file#selecting-items
 - A landscape that prompts a certain story
- Data Workshop: notetaking general feedback people shared, copy and paste chat conversations
 - o need to be able to summarize it the following day
- Three breakout rooms
 - Notetaking general notes and questions in breakout rooms
- Shareouts → afternoon section
 - o Focus on chats → will be recorded
 - Still take light notes
- Divide notetaking labor
 - Talking
 - Messages in chat/organizing spreadsheet

June 14th, 2024 - Daily Check-in

- Start reviewing each other pull requests
- Name of the image– have it include the resource ID
 - Complete and unique references
- Optimization not worth it as this point; in terms of the use of time.
- Image Interface and the change from a curated set of quality images to a quantity set
 - Volume/ High Quantity: Where you would be able to dig into the context and we would wouldn't do the annotation; discovery through creativity.
 - Most of the information would come from the metadata
 - Object detection would have happen in the interface; would be
 - In the interface we would do the presegmentation.
 - Someone would not be able to
 - Sandbox: You could imagine a teacher taking this and using some of the prompting to build an experience.
 - Building flexibility into the interface.
 - Think about the way in which we organize things...
 - Quality: Much more curated for however many images we're able to write descriptions first.
 - When visualizing the
 - Curatorial Work would be different—how we could have enough pieces for a particular place; having to research a place and all of the images that we would put into the scene; copyright.— from the lens of a mix of feasibility + considering types of things that labs tends to build.
- Generally: more open ended tools that individuals would be to work around.
 - \circ Middle ground \rightarrow ? would be led by audience and their use.
- We would be changing how we contextualize the prompt.
 - The prompting would be vague—like creative prompts.
 - Thought on Prompting: purposely big and playful prompts. This would be a way to guide people through a way of thinking through the collage.
 - Some activities that you could ask them to do.
 - Thinking about ways in we could the activities easier
 - Think through, given the audience that we have, what is the way in which they'd use it; tablet, in class room; guiding it into play.
 - This would help direct what the interface would look like.
 - It would be the metadata would provide the contextualizations.
- Mock-ups \rightarrow another round of sketches or moving in a set direction \rightarrow
- Make decision on Monday →

June 13th, 2024 - Daily Check-in

- Shouldn't cut out people's faces—reduce the features it from cuts onto people.
 - o Do a systematic review of a large set—100 and have the review broken up.
 - o Include stuff that the model is bad at.
 - o Threadpoolexecutor to make it run as fast as possible
- Sorted in some sort of loose way, and unlabeled.
 - Two way: use it in this loose and unlabeled way |
- Helping People notice the details—the first thing that you'd see is one small part and then context (learning where the specific sample came from)
- Doesn't want to see a box of people.
- Comments from Josh: That could even be a fun easter hunt kind of side quest gamification thing..."find the cell phones in the 19th century **\vartheta\text{"} | Time travelers have hidden these things, can you find them?
 - Another Idea: in terms of interface design, you could even have a "film strip" on the bottom or the side that always have thumbnails of all the full images of the things you've cropped from
- Hi-Fi Mockups with the running model, AI Planning Frameworkk
 - Visualization and report. This is our process on.... Sample test, evaluating, and more notes.
 - A lot of this we would attempt in a parallel way.
- **Decision Point:** In terms of experience—think about quality vs. quantity.
 - Brian: Interested in quantity from an evaluation part.
- Keep track of any of the issues arise from the Data.Labs.LOC.gov site data package.
 - Look for issues, errors, or inconsistencies in the files and comb through the documentation.
 - Look at the notebooks as well and send over some design or usability recommendations
- Time cards to-do

June 12th, 2024 - Daily Check-in

- Shauna-Kay wanted to go over sourcetree setup
- Ilayda asked about what is required for mock-up flow chart
- Aisaiah recorded score for test items and models used
- Display the masks—seeing how well it crops the images. The baseline: see how well it cuts out the images.
 - EfficientSAM
 - Certain Segmentation models support bounding boxes
 - Tweak the object detection to show the top 5 predictions or minimize the amount of boxes

- Thursday: testing on data packages
 - \circ General quality control \rightarrow no obvious errors for researchers

June 11th, 2024 - Daily Check-in

- Percentages of work— focusing mainly on what you want to talk about for Display Day
- Unofficial leads to balance time.
- Mock-up Reviews
- Starting Thoughts
 - Identifying what are the common parts of the interface
 - New things that are inspiring.
 - Key components, Composition, and what the final product would look like.

Brian

- o Play on Words
- \circ Cut-out \rightarrow leaning more towards the full image and the context
- Hover over image to access more context
- Header bubble with further contextual information.
- Content hotspots guided experience
- Menu save, reset, or choose a new experience.
- Thinking about the ways in which the project can be a playful experience.
 - Designing with metaphors; translation of objects into different things.

• Shauna-Kay

- Starting page
- Inlcudes LOC Branding
- *Loading screen* which emulates transportation to location
- Tool bar of different Functions
- Question: What is the primary device of the experience?
 - Need to identify User device
- Having **sound/music**, think about the "feeling" of the experience

Ilayda

- Played around with the idea of the images coming in from a different time period.
- Users would be able to scroll through the main image, see the historical fact, and they would able to move extract the necessary item
 - Animation of the breaking the image out
 - Animates the interaction for
- Artists tools (painting tools) and the regular tools
 - Speculative annotation.

Aisaiah

- Heuristic that ensures that the bounding boxes do not overlap.
 - If it is an image that does have an obvious subject

- Documention would include the assessment of the tool.
 - Thinking about the ways in which the documentation could included into the tool.--- the bounding box would be a way to
- Clarifying that the bounding box was created by a machine.
 - Quality control to ensure that the segments that we create are clear
 - Thinking about the ways in which an educator could use something like this.
 - Shauna-Kay: Maybe a notice/statement above or below a rights statement?
 - Need to make sure that the process/AI used in the tool is clear.
- Filtering and navigating different collections.
 - Do we care about the collection? Do users care about the collections?
 - This question would allow us to gauge how prominent the collection feature of the model
- Final thoughts
 - Device: Generally would be a tablet (middle ground) and how to scale to small screen
 - Animation attributes could be done with css

June 10, 2024 - Group Meeting

- Goals: watch videos, create image set, experiment more with segmentation
- Shauna-Kay: Using API to pull images
- Ilayda: break down the 10/20 images into historical figures/people, animals, plants, monuments/buildings
- Sample Images Criteria
 - Note: Black and White Images
 - Focus on DC and allow the script to pull from different areas. D.C. also has a really good
 - $\circ\quad$ There are a lot of images of animals that are kinda h
 - o Random:
 - o Google Sheets to the Sample Images:
 - 10 Images
 - 3 People Historical (Befores 1900s | 1900s | Now)

0

- 4 Flora Fauna (Tree, Flower, pets, Animals)
- 3 Buildings/ Landscapes (D.C. landmarks | Backdrop)
- Randomizer
- Farm Life from Free to Use: good for Rural America, lots of clear images

June 10, 2024 - Quick Check-In with Brian

- LC Data Workshop JF would provide support. (Notetaking)
 - Main work outside of the project— next (Week 6) would be Summer Fuser
- Deadline: Week 5, for the Evaluation Object Detection Model
 - Once we have that we would be able to move-in to the AI Planning Framework
 - There also needs to be the Segmentation Eval
- Deadline: Week 7, AI Planning Framework
- This week we should have our sample test set
- Having the mock-ups and the machine learning evaluations in the next three weeks would be ideal.
 - Two people further creating mock-ups of our sketches
 - What is aspiration and then what would an MVP contain
- Mock-ups, model evaluations, risk assessment worksheets
- Looking towards less— as an exercise. We would need to decided on whether one city would be enough.
 - Think about two different places; it gestures towards the goal of this model support a variety of places.
 - o Import to focus on what is feasible and what would allow us to stay on time.
 - Documenting it as something that other people would ask for; in the spirit of being iterative
- Copyright free but doesn't need to be in the free-to-reuse collection
- Again identify what is aspiration and what would be MVP

June 10, 2024 - Labs Meeting

- User Testing Kary Cotton-Williams
 - If we decide to do something that is related to D.C.
- Jaime comment Courtney McKellan annotator tool; biggest piece of feedback was "why don't I have more options" for items, think about giving users more freedom, like a plain backdrop with all the photos still from the particular city
 - Curious about the querying capabilities— and run/ visualize the results to scale.
 - o Collection v.s. Visual Dynamism
 - Pull the objects and then cluster them– then see what will
- Utilize figma to build mock-ups- for testing—
 - Building the entire tool would take some time for the
- Build-out/ showcase a model that works pretty well for the specific type of item that we want to frame and a mock

_

- We're looking at the Images-
 - Curated objects with descriptions
 - Regular items would have basic information (Name & Link to the interface design).
- Showcase
 - Options to have different landscapes: empty and prefilled
 - Prefilled would have multiple options
 - Different Neighborhoods with figures that are significant to the D C
 - Three concepts that people would be able to explore and expand upon given their own creative elements.
 - Interface
 - Undo/Redo capabilities
 - Categories that individuals would have the abilities to select items from
 - Content
 - Rural america— get into the details of what is meant by this.
 - Focus on something more specific
 - Have a specific time frame would make it stale very quickly.
- Concerns/ Expansion
 - Keep it from going STALE! Let's make it stay fresh!
 - The library could be able to use the tool and cycle out the content depending on what they want to highlight...
 - How can make this an updated tool
- Extraction more thoughts on how the images would be extracted
 - Would it be precut or would you have the idea of taking the same
 - EfficiencySAM– free form crop tool.

June 6, 2024 - Daily Check-In

- Really need o identify the sample— as that would direct other types of models
- Shauna-Kay: Interest in Chicago and D.C.
 - Since the library of congress is D.C. has the users explore marginalized leaders around D.C.
 - We can consider our decision on Chicago and D.C. started now.
 - We have to find a good backdrop and the things to put into that place.
 - Backdrop would take ton of consideration
 - Be prepared to showcase work on Monday– show and tell

Task Notes

- Sketch a story board– for @everyone to do.
 - Independently create a story board map of the Site/tool experience
- Creating the sample set. @everyone
- Model Evaluation and Metric
 - Make the recommendation for which model to use
 - Pretty large task that should be broken up into other tasks
 - Output the images of different models into separate folders for comparison
- Create a simple demo that shows the different interactions for the interface
 - Evaluating a possible Javascript library
- o Digital Accesibility Consultation
 - Think about someone who is blind or low-vision and think about the ways in which they may use this tool.
 - Sound could be used to enhance the interaction
 - Translating a visual art into an accessible experience

0

June 5, 2024 - Department Wide Meeting

DNA data storage – interesting

June 5, 2024 - Daily Check-In

- FSA (farm security administration), carol highsmith, HABS (historic American building survey) [collections for photos]
- Ben Lee's Newspaper Navigator tool to explore image search
- American Folklife Center but be wary of copyright
- https://libraryofcongress.github.io/seeing-lost-enclaves/#research/images.md
- https://labs.loc.gov/work/experiments/newspaper-navigator/
- https://www.loc.gov/search/index/partof/?fa=partof:american+folklife+center&sp=1
- Homework: find good intro videos on machine learning, deep learning, neural networks
 - Ilayda and Shauna-Kay: pull Aisaiah's code from Github, run on your machine have to have PyTorch & Torchvision on personal machine
 - SAM ask it take like objects and annotate them
 - \circ Detect \rightarrow Extract, so that it outputs PNG of the Objects.
- Categories of work
 - Detection and Segmentation
 - Modeling and Working on the Interface
 - Deciding the feature set; what we are exploring in this experience
 - Draging and dropping, set of manipulation
 - o Pop-up Information and link back to original item

- Risk Assessment
- Decide on a place to start
 - o Three types of things that we want to drag into to start with
 - These things need to be supported. (Guiding the Detection and Segmentation)
- <u>3Blue1Brown Neural Network Playlists</u>
- Working Group Sessions
 - Programming
 - Collection
 - o Interface design

June 4, 2024 - Mini-Meeting Amongst Each Other

- Collage could be landscape—could be portrait
- Idea of the game is different
 - This has been pushing through a col
 - o (1) The college tool would
 - Collage -> Game
 - o (2) Transforming the game into a demo– for other people to follow.
 - Game -> Collage
- Thoughts about game and the collage:
 - Disconnect: Is the game the best way to connect?
 - Building a collage tool that is depended on a game
 - You take a character- it's go away from the data visualization

_

- Connected: Thoughtful way for individuals for use the college tool.
 - The end product is the collage and we are showcasing a use case
 - How do we tap into our audience
 - The use case and demo is a way of doing that
- Thinking about the data visualization process
- Main Streets Project This way it totally still is a game
 - Agree that is imaginable
 - When the user has the college tool, they can select a city and sample from that city to create a collage.
 - The sandbox
 - When they select the image, they can get the context of the piece
 - Through creating the art piece—
 - The one thing that we could see being a problem for t
 - Finding Enough pictures
 - Samples— like static landscapes and everything else could be extracted

- We used image segmentation
 - Pick the landscape and then create the session
- Sandbox Tool,
- o Marginalized/ Historical/
 - A lot of the stuff surrounding marginalized communities would be portraits.
 - We have to do independent research on the materials
 - Another added layer of work that we would have to consider.
 - Have the Experts or Curators help us in learning about figures/periods/times

June 4, 2024 - Group Meeting

- Probably pre cutting images; don't worry too much about real time precision in object segmentation
- running processes on GPU vs CPU
- https://en.wikipedia.org/wiki/CUDA#:~:text=Compute%20Unified%20Device%20Archit ecture%20(CUDA,computing%20on%20GPUs%20(GPGPU).
- Meeting later to clarify project what type of tests to run, what we want from the images, what is the interactive activity, etc ... what are the different pieces of the collage?
- Pair programming on Wednesday
- Meeting with CCDI team might be intriguing since they are work on audio collage and us on image collage

CCDI Meeting

- https://www.loc.gov/programs/of-the-people/represent/connecting-communities-digital-in-itiative/
- https://blogs.loc.gov/ofthepeople/2024/04/register-now-for-ccdis-summer-fuse-2024/ [note for Ilayda look into coming into this in person]
- https://loc.gov/programs/of-the-people/represent/2024-ccdi-recipients/
- Registration for CCDI's Summer Fuse 2024 in-person activities:
- Monday, June 24: 12:00 p.m. 5:00 p.m. CCDI awardee presentations will be followed by a spotlight on community-engaged AI and intern project presentations. Register (in-person):

- https://www.etix.com/ticket/p/58680199/summer-fuse-2024-washington-events-from-the-library-of-congress
- Tuesday, June 25: 10:00 a.m. noon. Interns and Junior Fellows may join an in-person conversation with CCDI collaborators, followed by a listening session for all staff featuring current CCDI Artist/Scholar in Residence Dr. Allie Martin. Register (in-person):
 - https://www.etix.com/ticket/p/34441585/summer-fuse-2024-washington-events-from-the-library-of-congress
- Wednesday, June 26: 11:00 a.m. View the screening of a film by former CCDI Scholar in Residence Maya Cade. Register (in-person):
 - https://www.etix.com/ticket/p/36857263/summer-fuse-2024-washington-events-from-the-library-of-congress
- https://iiif.io/
- Discussing each others' projects
- https://www.loc.gov/collections/voices-remembering-slavery/
- https://blogs.loc.gov/ofthepeople/
- Ethics of the machine learning portion of our project our guidelines for image recognition/segmentation
- Reading list: The Black Technical Object (Ramon Amaro), Proxies (Dylan Mulvin)

Group Meeting:

- Idea: do photos from a particular POC photographer

Working Project Pitch: June 3, 2024 - Lab + PLOI

- PLOI = Professional Learning Outreach Initiative
- Eileen works with K-12 \rightarrow music and art materials; civics and democracy
 - Support high school and other teachers with training formally and informally
 - LOC's way of outreach to surrounding schools/community
- https://staff.loc.gov/sites/clle/ (can only be accessed via citrix)
- https://www.loc.gov/programs/teachers/about-this-program/
- https://tpsconsortiumcreatedmaterials.org/ ← database of K-12 focused projects with LOC resources
 - https://tpsconsortiumcreatedmaterials.org/organizations/bert-snow-co-llc/ ← specific example of educational game
 - o Civics video game challenge
 - "Simpler is better." Showcase the sources
 - Think about what the dataset/ collection that we will use and how it will drive the
 dataset. In addition, when creating, questioning throughout the process can be
 used to drive our creative process—helps with delaying

- The description of the project—
 - What does this audience need that is different from others?
- UMD CS Department: Game designed for a young audience about different things basic to coding. They must have underestimated the intellect of their audience.
 - Look at teaching outcomes—the PLOI teaching network can help us gauge what the age group is capable of.
 - Students understand a basic level of pedagogy more than we assume.
- Gaming aspect will be demoed. The focus will be the collage tool— Do you find that imaging to be a good learning outlet. How to center pedagogy around that as a standalone product.
 - Visual Literacy and Visual thinking strategies
 - Memory activities— among the endless amount of examples that we could find.
 But the question is whether or not we are testing skill or close-reading?
 - The questions and the features that we would be looking for would be very different.
 - Different ways that we can layer that analysis.
 - o https://blogs.loc.gov/teachers/

Meeting with Brian:

- not training any machine learning models, but using and assessing pre-existing ones
- segmentation? object detection? what tasks do we want to do
- create an even smaller sample set of the free to use collection say 20 images that we think would work well for the game, run some tests on this set script that does combo of object detection and image segmentation and need to choose what we want to detect, and just run this
- want to develop something like this early on
- identify the different tools we want to use
- image segmentation have to manually annotate what the model segments, so need better understanding of the labels available for object detection
- This is the main work for this week; other piece is the content what are the sample images, what types of images are we interested in, etc
- What images would resonate with our target audience?
- Investigating an automated way of processing the images
- Install PyTorch: https://pytorch.org/
- https://docs.python.org/3/library/venv.html

Notes on our quick meeting

- No training—it is more on assessing how those things will work with our materials.
- What are the type of tasks that we want it to do?

- First Technical Tasks:

- Would be nice: To have a script that (has a sample set of images that we would run some sets on) does a combination of image detection and object segmentation.
 - Have a list of things that we want to detect and run the test on our sample.
 - Wants us to develop this earlier than later—there would be a lot of non-meta trivial work that would be required to run our computers.
 - One-day this week would have to review the
- We could start with what we think would be the best—in the
 - SAM to cut an image but would require a manual annotation
 - Understanding what types of labels are available for whatever type of game.
 - We might get some additional thoughts regarding what things we can settle on.
 - Investigate Automated imaging.

First Content Task:

- Mini-games could be model and the navigation could be x

- Thin

Work Plan

[Shauna-Kay: Can be edited.]

At the beginning of this project, we were split on the direction that we wanted this project to go in.

We knew that the goal was to create a visualization or interactive interface of some sort that (1) utilized the Lab's data packages, (2) engaged emerging technologies, (3) and (perhaps most importantly of all) worked to bring marginalized histories to the front while engaging the general public.

While doing exploratory research, we realized that all three of us were interested in the Selected Digitized Books and the Free to Use and Reuse data packages. With this in mind, we considered what would be the potential outcome of working with either images or text separately, and perhaps even combining both of these mediums for a visualization.

We initially settled on three ideas: text mining to pull out thematic shifts in a given set of texts, gamification of data to make exploring the Library's collection more interesting for younger audiences, and image segmentation models to make Library data more interactive and usable for more creative use cases.

Given our current skillsets and the complex nature of combining text and image into a visualization, we decided to work primarily with images.

A few other considerations factored into this decision. The first, was the previous Junior Fellows worked primarily with visualizing text. This "fortified" our decision to work with images instead. The second, is that we wanted to work with younger audiences, as many of the Lab's work is geared towards a more mature/scholarly audience. We each realized that we were not aware of the Library of Congress or what it had to offer when we were in late elementary/early middle school. Therefore, we wanted to create a tool that allowed a younger audience to connect with the Library's collections at an earlier age, which we hypothesize will lead to more engagement with/use of the Library's materials in the future.

We also wanted the deliverable we decided on to be a result of using machine learning tools and web design (in some capacity).

After a few more discussions, we decided to combine Ilayda's gamification idea and Aisaiah's collage idea (courtesy of Brian pointing out to us to the "connecting threads" between each idea).

Keeping in mind time constraints and skillset, we tweaked to the gamification aspect of our idea. Rather than creating a dynamic 2D or 3D game, we chose a sort of "flat" gaming style often used in digital literacy spaces and games. This involves an interactive screen that shifts between prompts based on the choices you select. We anticipate a scavenger hunt model for this part of the deliverable. The end goal of completing these scavenger hunts/puzzles is to collect items (hats, jackets, etc...) from the Free to Use images and create a collaged avatar.

Because of the ten week timeframe we have, we will be prioritizing the development of the collage component of this deliverable. The collage will hopefully be a completed, standalone tool. The gaming aspect of the deliverable will be presented through a proof of concept. The goal is to demo how the Library's collections can be used to generate assets for interactive gaming experiences for younger audiences.

We will be meeting with PLOI (June 3, 2024) to understand their experiences working with youth programming for the Library. While they conduct in-person activities, we think that it will be beneficial to learn about their experiences and see how the skills and methods they've utilized can be transferred to a digital space. We will also be meeting with other subject-matter experts to refine and direct our project.

Notes: June 3, 2024 - All-Staff Lab Meeting

- CGD = contract & grants directorate (not sure if we need to know this but just in case)
- Bureaucracy involving not being allowed to pay/provide incentives to survey takers for user research making it more difficult to carry out research (not necessarily relevant to our project but interesting to know)
- Importance of user research in product development
- Review of the LC Labs team tasks for the week
 - Labs is preparing for a virtual Data Jam style activity, hosting guests
 - Mentioned a task for Junior Fellows working with the notebooks that we'll get into tomorrow
 - Reviewing prototypes of experiments for machine learning: Humans in the Loop (https://labs.loc.gov/work/experiments/humans-loop/) – problems with historic data whereas models are trained on contemporary data, trying crowdsourcing for more historic data
 - \circ By the People \rightarrow connected project
 - Potential website redesign/community engagement work with University of Michigan School of Information on AI4Lam group as it grows bigger
 - <u>Hard Fork</u> → AI podcast mentioned by Jaime Mears
 - Innovator in Residence Statement/Work plan/Project Proposal → framing projects according to Library standards
- P&P = prints and photographs

Discussion about our project

- Link shared by Aisaiah: https://github.com/facebookresearch/Detectron
- Links shared by Brian:
 - o https://github.com/labelmeai/labelme
 - o https://github.com/matterport/Mask RCNN
 - o https://labs.loc.gov/work/experiments/newspaper-navigator/
- Jaime: Collage examples from the past Data Jam, confirms it is an idea that excites users
- Need a data visualization component as intermediary step missing from just the collage piece, but can be part of the development process
- Visualizing outputs of machine learning models, can be part of the research or part of the public facing part
- "the idea of using collage to show samples of images at scale and the representation of certain "aesthetics", the homogeny, prevelance of subjects, etc." Jaime
 - \circ <u>https://www.loc.gov/item/webcast-9253/</u> \rightarrow Data Jam? \rightarrow Mustaches
 - 'Noting what the model documents/ sees as 'x'-- Hat, books— which could be part of the assessment model.
 - https://www.loc.gov/item/webcast-9253/ data jam collage idea

• Collage as a representation of what items are prevalent in the image dataset and what it can tell us about the image set as a whole

Intern Meeting + Brian

- Reaching out to Library Staff who are experts on the Prints and Photos collections to develop our ideas' specifics with the Free to Use collections
- Good goals for this week:
 - o continuing to hone the idea, being more specific about what we're building, what will be interactive and what will be a mock up (ex: hone in on the specific technologies we're using so we can start assessing and testing, trying out the tools on the collection part of this will be setting up the environment on our personal computers to try to run the tools or see if we need alternate tools/arrangements)
- After meeting with Eileen: talk through the idea some more so we have a starting point for work, identify short term roles to start assigning things
- Starting to look at AI planning framework and figuring out work plan for it
- Doing sketches of what the user experience could look like \rightarrow common visual
- Adobe XD and/or Figma as tools for building the design Figma
 - \circ Can use a combination of tools for mock-ups \rightarrow high-tech/low-tech
- Notes on our quick meeting
 - \circ I
 - No training—it is more on assessing how those things will work with our materials.
 - What are the type of tasks that we want it to do?
 - First Technical Tasks:
 - Would be nice: To have a script that (has a sample set of images that we would run some sets on) does a combination of image detection and object segmentation.
 - Have a list of things that we want to detect and run the test on our sample.
 - Wants us to develop this earlier than later—there would be a lot of non-meta trivial work that would be required to run our computers.
 - One-day this week would have to review the
 - We could start with what we think would be the best— in the
 - SAM to cut an image but would require a manual annotation
 - Understanding what types of labels are available for whatever type of game.
 - We might get some additional thoughts regarding what things we can settle on.

• First Content Task:

Notes: May 31st 2024 - Morning Meeting

- Focus the interface on the Interactive game tool
- The collage tool
 - Make it good enough that we'd be able to use
- It would be great to focus on one experience.
 - If we create two things, if it would be great to make sure that they could be done in parallel.
 - The game could be developed without the collage tool being needed.
- One thing that might be missing: Data visualization
 - Someone way to visualize the datasets
 - Visualize the outputs of the collage tool
 - Visualize the ways in which individuals pick and browse through the assets.
- Wants us to walk through explicitly what he wants us to happen
 - To what extent— so the goal of that would be extract different features of the free-to-use images
 - That would be done somewhat manually and somewhat automatic
 - Highlight something
 - Something that would have to be **done at scale**...— so think of like object detection
 - What types of things and how many things would we want that can
- What are the different parts of the avatar that we want to source from the images.
 - Have some criteria about what is a good number
 - See if it is feasible to have a process... using machine learning
- What is that interactive nature of the game?
- Brian states that it would be feasible to work on these two things before the four of us.
- Break down the task completely—(1) Exact Collection, (2)...,(3) Coding for those connective tissues.
 - Noting it is a lot of work.
 - Looking at things that would need to be scared down
- Fill out the AI Planning Framework regarding the Machine Learning tool that we will be using and our plan to mitigate matters of bias.
- Think more of proof of concept. The Collage tool itself could be it's own project.
- Mocking up what the game would look like; Using figma or adobe after effects/XD. Showing the basic ways in which the interactive way would go.

- Final Ideas about the Work plan
 - We are building this collage tool that would help generate assets for interactive game experiences for younger audiences.
 - Instead of actually implementing the game as code, think of creating a mock-up of how the assets can be used to create a game.
 - Finding interesting ways in which we can visualize the tools
- We have reached a point where we can assign tasks:
 - Flesh out a time and where the categories of work begin
 - Who does what and what the different type of steps would look like.
 - We can decide on the tools and
 - Wants us to think about the best way to communicate the idea and things that are there to focus on.
 - See in these early conversations what resonates with people and they would be able to give us feedback on the gaps and potential challenges.
 - Note: This is still very rough and very early
 - Looking forward to hearing what Laurie response would be
 - The ML part is relevant
 - The other piece is justifying why we are using this technology and for what audience.
 - Talk about the project pitch and how we got to where we are at, feasibility and technologies.

Notes: May 30th 2024 - Project Audience Pt. 2

- Working on a project that is feasible for the timeline
- A gamification

 restoring museum images and then getting access to the collage images... would allow to
- Museum Library that would
- Narrative– make it interactive
 - https://mediasmarts.ca/sites/mediasmarts/files/games/reality-check/index.html#/sit es/mediasmarts/files/games/reality-check/

Notes: May 30th 2024 - Morning Meeting

- The heart of collage is cutting. When using ML, technology would be used to
- There would have to be some type of masking type of tool that allows people to add the info back— if the cut is not perfect.
- If we make the game, we would need more scope—
 - We can still make mockups for a game, even if we cannot get to that step.
 - Timeline wouldn't pan out
- The process of transforming Library material into game assets would also be worthwhile to explore.
 - o <u>Lost Enclave Examples</u>
 - o Avatar Creation Utilizing image segmentation
 - Identify materials that could be transformed into textures/ sprites.
 - ML would be used—
 - What styles of games would be want to work for...
 - Mention: Looking at a model that would generate and mix two images together.
 - Grouping similar looking images.
 - Historical,
- Wants us to use emerging technologies.
- Thinking about what type of collage will be making—if it is an avatar, sprite, or langscape....
 - The combination of the two objects and mixing them together.
 - The lackscape would lack a community. Avatar creation has a stronger connection to materials and personalization.
 - Thinking about how this would let me people engage or learn more
 - Likes the idea of there being some sort of endgoal– specific use case.
- By tomorrow fillout the work plan as much as possible—
- Thinking about the ways to combine the tools. **Come to a consensus.....**
 - Brian can come to a conclusion for us
 - If it going to be a collage tool period,

- o Or will be used to create assets for a game.
- We can go back on things as we do it.
 - Come to a particular idea that we can start to feel out and scope
- Meeting, move towards and idea together— a couple ideas.
- Will follow-up on the research script and etc (Meeting with laurie and WebTA)
- Laurie meeting
- Monday we will be with Aileen (PLOI)
 - o Morning meeting will be the big LABS team meeting.
- Tuesday CCDI Team meeting
 - They would have a lot of advice regarding communities and their

Notes: May 29th 2024 - Project Audience Pt. 2

Summary

Similar to our last meeting, we discussed feedback from our morning session and focused on project ideas that (1) utilize images from our collections and (2) engage with youth audiences that the library does not normally cater to. In addition, we further discussed the use of a game project and the collage tool.

Gamification of Library Materials, Retro RPG

- @Hayda went into detail about ideas regarding the Story Maps project pitch.
- Rather than distributing a pedagogical product, the project would be a gamification of library materials. It would reimagine the ways in which individuals engage with the materials through the format of a retro role-playing game.
 - Referenced projects presented at the <u>UMD Technica Hackathon</u>
 - Potential to engage with an audience younger than high school-level.
- **@Shauna**: Proposed ways in which the gaming experience would be used to curate material from underrepresented groups which could be informed by collection specialists.
 - Similar to a puzzle experience, an example could be: "use [of] the <u>Free to Use and Reuse: Hats</u> collection and our little character has to retrieve all the hats and match them to an image"
 - Hearing from the PLOI team could inspire more 'play-based engagement'.
 - Civics/ Outreach to enable kids to engage with the material.
- @Aisaiah: Mentioned knowledge of Retro RPG tool used to create engagement at a virtual conference.
 - Link to a simple Unity RPG called Missing Exhibits by Black Goby Games
 - Note: It's a little scary but the library feel is there.

Generally would be a move away from typical information processing and data manipulation.

Studio Collage Tool:

- @Aisaiah Dove deeper into the use cases, audience, and concerns.
 - Unlike the gamification of Library Materials this would be a drag and drop studio tool that could be leveraged by anyone

 – use cases could be History Fairs,
 references for artists, and general creative projects.
 - Object identification or item metadata could be used to query images of interests and image segmentation to clip features from art.

- However, image segmentation does present issues of algorithmic bias, such as adaptability to intricate library material (meaning clips of content could be incomplete or fragmented without training) and concerns regarding image recognition, particularly of darker-skinned individuals.
 - <u>DINOv2</u> segmentation demo already showcases the first concern with this <u>image</u>— however this is untrained and could be improved by <u>Image</u>
 <u>Annotation software</u> (shared by <u>AI4LAM</u>).
- @Shauna Asked about the collage tool and the use of the different collage types— like images use cases and collections of interest.
 - **@Aisaiah** response was the general <u>Free to Use and Reuse Data Package</u> with the potential to add more content depending on direction of use—e.g. Images of historical figures from different collections or culturally relevant material.

- Gamify: Technica Hackathon at UMD. Virtual options which has videos of past games. RPG Games.
 - RPG Games could be an interesting way for individual ways for students to engage with the audience.
 - Thinking about a scavenger hunt.
 - Emerging Technologies + Marginalized Communities
 - Okay, here me out: use the free to use hats collection and our little character has to retrieve all the hats and match them to an image?
 - Civics, outreach to enable kids to engage with the material
 - Introduce the younger audience to the materials that the library has.

- Something that will move away from our experience in typical information processing and
- RPG Museum

Notes: May 29th 2024 - Morning Meeting

- Focus on creating something for open interpretation (which we covered among ourselves)
- Games, thinking about experiencing and allowing individuals to explore a spaces as opposed to creating a narrative for them
 - Play based type of fun.
- Youth are not an age group that we normally do engage with.
 - Alot of our work has been towards academics and DH– the Library now has an appetite for something like this.
- As for the Collage tool, we have to think about what type of collages we are interested in making—like juxtaposition tools.
- The direction is looking like images—since the
- PLOI Division will give an overview about the age group that they work with and the different projects that they do—thinking about ways to translate physical activities into digital tools.
 - Think about the questions for the PLOI meeting.
- WebTA
 - Note: we will get paid for Memorial Day– but document it as a federal holiday.

Notes: May 28th 2024 - About Project Audience + Idea Brainstorm

Summary:

Over the meeting we were able to identify High Schoolers as the target audience and pitched different ideas to explore and experiment with. In addition to High school-level audience we explored the prospect of also creating a tool for educators.

Here's an overview of the ideas we explored and also our notes:

- 1. **Educator Theme Tool:** Tool that would use NLP to review themes and content matter in the Youth collection part Digitized book dataset.
 - a. Datasets/ Content Idea: Selected Digitized Books Data Package
- 2. **Image to Text Prompt:** As the name implies it would be a tool/ interface that generates story prompts when given image. This would be a creative educational tool for youth.
 - Datasets/ Content Idea: <u>Free to Use and Reuse Data Package</u> or General Library Material
- 3. **Story Maps/ Game Tutorial:** Similar to cool math games we are familiar with from our youth, the project would focus on creating an interface for individuals to explore library materials.
 - a. Datasets/ Content Idea:
- 4. **Computer Vision Collage Tool:** A studio tool that can be used by educators, artists, and youth to create collages using library material.

a. Datasets/ Content Idea: Free to Use and Reuse Data Package

General Meeting Notes:

Shauna:

• Thinking about the book collection and how it would be better for Educators.

Ilayda:

• Thinks both the Free-to-Use data package and the Digitized book would be cool.

Ilayda:

• Using images as prompts for writing pieces.

Shauna-Kay:

- Think about educators in training and looking at different themes in Educational Topics.
- Idea came from shadowing a teacher/education librarian.
- Evaluate the erasure of identities in books.
- Digitized book collection: Assess education themes for youth.
- Interested in creating something for youth as well.

Shauna-Kay:

- Present themes for open interpretation.
- Structure the tool and format.
- High schoolers offer more freedom; Shauna prefers working with them.
- We all agree that we like the

Target Audience: High Schoolers and Educators.

Shauna-Kay & Ilayda:

- Cool math games ("Math Island").
- Create an app with child-appropriate content.
- Mini-lessons for different audiences.
- Feasibility in 10 weeks?

Aisaiah:

- Focus on audience.
- Use Computer Vision for a high school-level tool.
- Library material extraction and visualization.
- A collage tool concept.
- Pitched Idea:
 - Collage idea: Search through images.