ALTIO

REIMAGINING AUDIO FOR EVERYONE

Reimagining audio for *everyone.*

Problem

Deaf and hard of hearing people are often are left out of key nuanced information that is conveyed through audio in digital spaces

Solution

ALTiO is a social media platform that encourages and provides drawings as visual supplements for interpreting audio–providing *alternative options* for everyone to experience content

VALUES ENCODED

| **Values**	**Inclusion**: ALTiO's intention is to **include everyone** in fully experiencing digital content, especially those in the Deaf/HoH communities, who are often excluded from audio–often a large part of this content form.	**Creativity**: We want to encourage all to **participate** and to **create** something and express themselves.
Design Features	Including captions on all content and allowing posters to edit incorrect captions.	Drawing interpretations are up to the interpreter, and they essentially have free reign over what to create.
Conflicts	Including everyone in the posting process while still providing audio interpretations to users Allowing everyone regardless of drawing ability to participate	Empowering people to create while maintaining respect and being helpful in the interpretation process

SIMPLE TASK:
Interpret an audio
The user follows prompts to create a post and add a drawing.
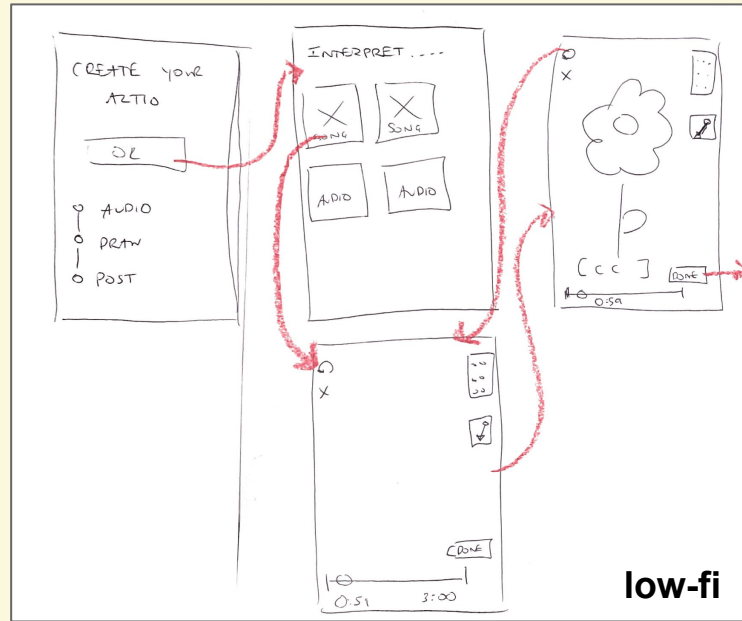
low-fi

The main change from the low-fidelity prototype is that anyone can participate in posting by allowing content without audio to be included, with or without an interpretation.

MODERATE TASK:
Explain and clarify interpretation

The user follows the prompts to name their ALTiO, add captions, and annotate with explanations.
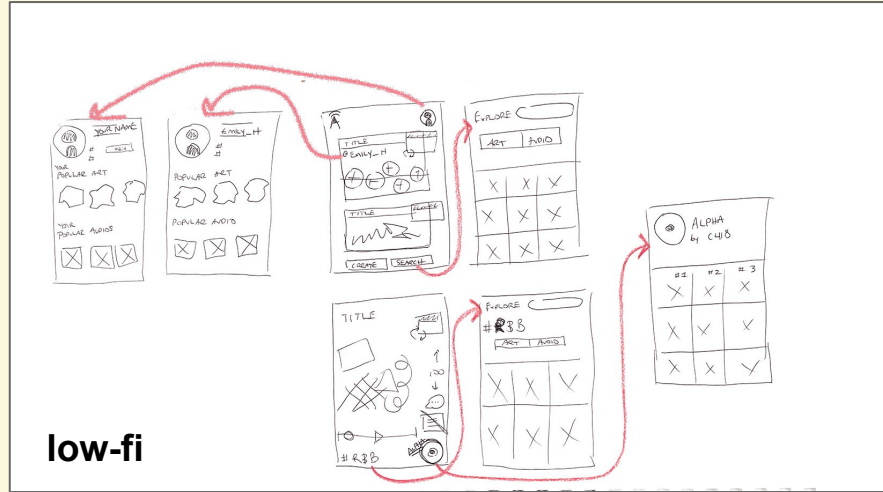

low-fi
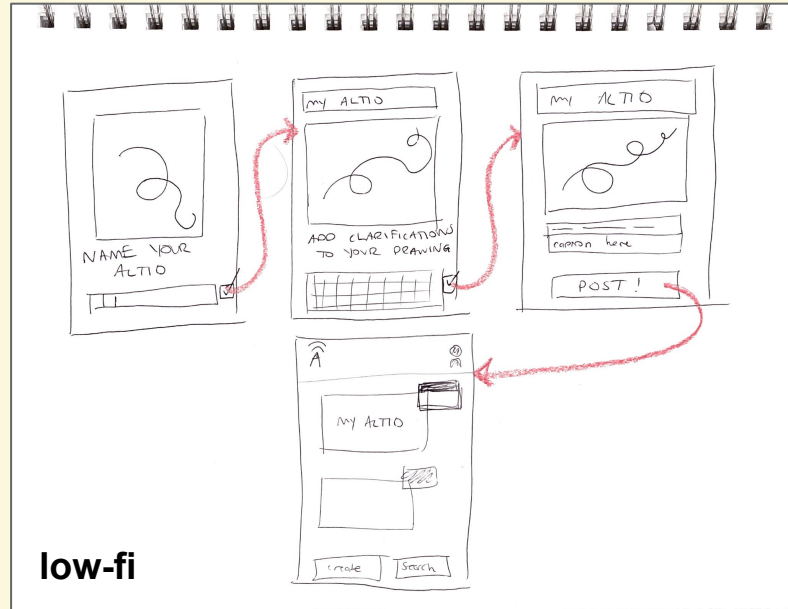
The main change in task is that explanations will now have a tap-to-annotate functionality rather than just writing captions below the post.

COMPLEX TASK:
Interact with various interpretations and artists on the platform

The user explores different social content in the app, such as the profile pages, hashtags, and posts in the feed.

low-fi

Now when exploring audio, users can see tags for the vibe and typical drawing features associated with each audio.

Usability Goals & Key Measurements

Usability Goal 1: Discoverable

Usability Goal 2: Enjoyable

Goal

User taps into many different features, and has minimal questions in performing task

Learning curve is manageable

User shows or voices signs of excitement/enjoyment

Progress

We need to streamline the onboarding flow so users can understand the purpose of our app and how to create a helpful ALTiO.

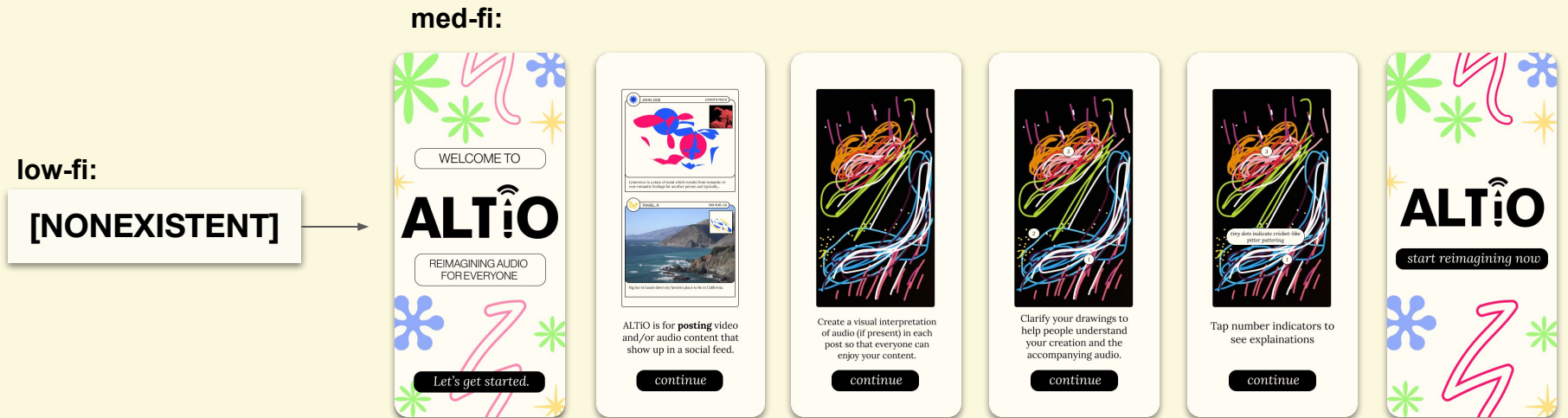*Label key features and buttons for convenience and clarity*

Introduce fun color and background elements to make the app feel artistic and engaging

Revised Interface Design
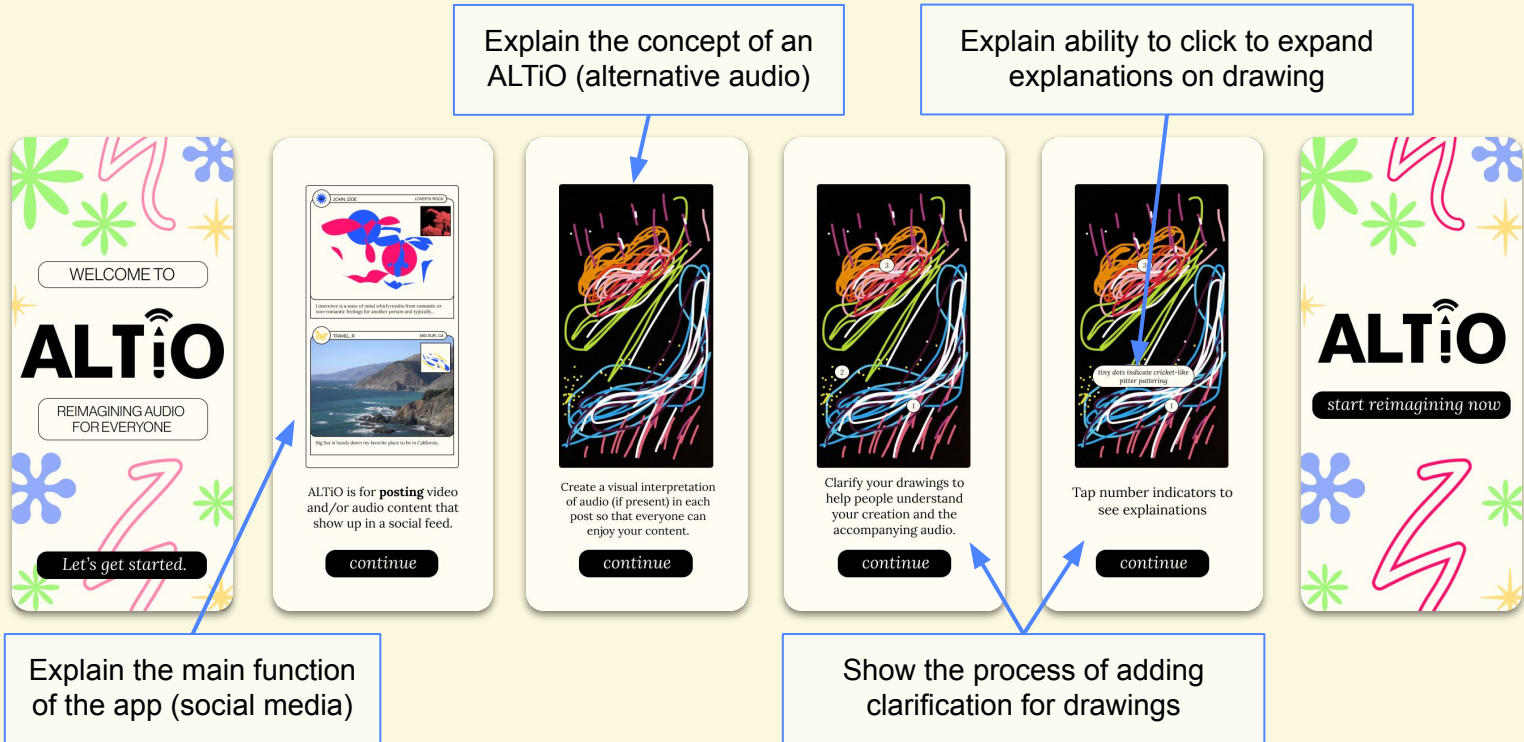
MAJOR DESIGN CHANGE 1 - Onboarding Flow

From low-fidelity prototyping, it took one of our users around 15 minutes to understand the purpose of our app.

med-fi:

low-fi:

[NONEXISTENT]

SOLUTION: Create an onboarding flow to inform users of the purpose and ease user into unique features.

Revised Interface Design
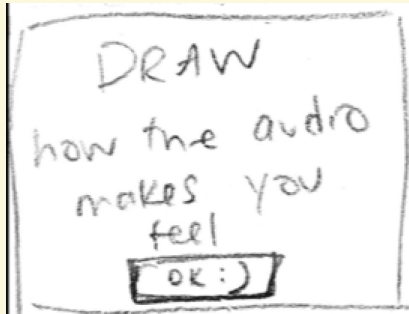
MAJOR DESIGN CHANGE 1 - Onboarding Flow

Explain the concept of an ALTiO (alternative audio)

Explain ability to click to expand explanations on drawing

WELCOME TO

ALTiO

REIMAGINING AUDIO FOR EVERYONE

Let's get started.

ALTiO is for **posting** video and/or audio content that show up in a social feed.

continue

Create a visual interpretation of audio (if present) in each post so that everyone can enjoy your content.

continue

Clarify your drawings to help people understand your creation and the accompanying audio.

continue

Tap number indicators to see explanations

continue

ALTiO

start reimagining now

Explain the main function of the app (social media)

Show the process of adding clarification for drawings
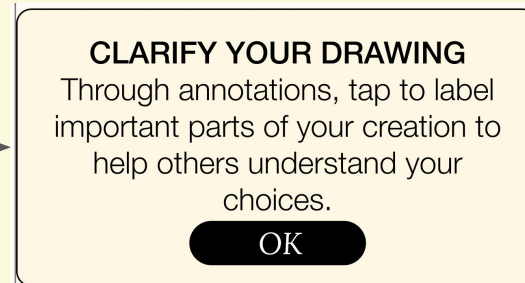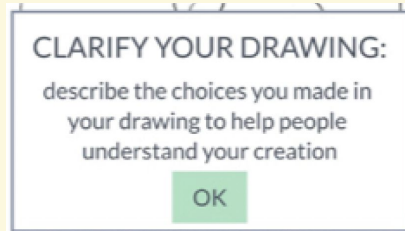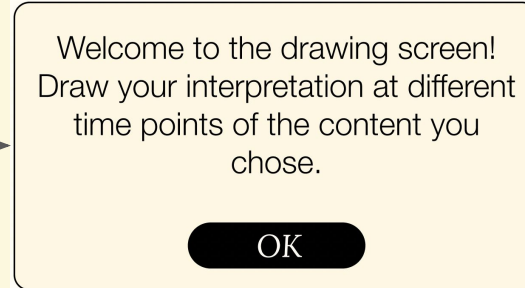
Revised Interface Design

MAJOR DESIGN CHANGE 2 - Revised Clarifications

For some participants, directions were not fully clear around the purpose of the drawings or explanations.

low-fi:

DRAW
how the audio makes you feel
OK :)

CLARIFY YOUR DRAWING:
describe the choices you made in your drawing to help people understand your creation
OK

med-fi:

Welcome to the drawing screen! Draw your interpretation at different time points of the content you chose.

OK

CLARIFY YOUR DRAWING
Through annotations, tap to label important parts of your creation to help others understand your choices.
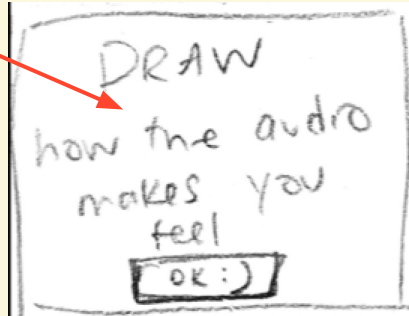
OK

Clarity on the purpose of drawings and clarifications is essential to the inclusion aspect of the app–as we want to keep the interpretations both creative and beneficial to users. These encouragement pop-ups seek to emphasize key features (such as scrolling through the timeline, and adding annotations) that allow users to add depth to their interpretations.

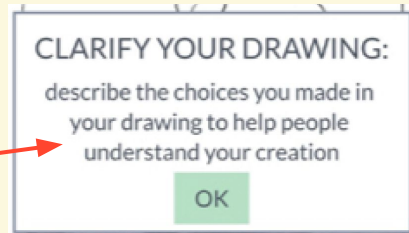**SOLUTION:** Revise clarifications to make clearer how and what the drawings should accomplish.

Revised Interface Design

MAJOR DESIGN CHANGE 2 - Revised Clarifications

We wanted to emphasize that users can draw interpretations at different time points.

This instruction was vague for many participants - the lack of guidance may make people confused about how to draw their interpretation.

DRAW

how the audio makes you feel

OK :)

Welcome to the drawing screen! Draw your interpretation at different time points of the content you chose.

OK

This pop-up failed to explain how users might annotate to clarify their drawings.

CLARIFY YOUR DRAWING:

describe the choices you made in your drawing to help people understand your creation

OK

CLARIFY YOUR DRAWING
Through annotations, tap to label important parts of your creation to help others understand your choices.

OK

This pop-up clarifies how users might label their drawings and what information to include.

Revised Interface Design

MAJOR DESIGN CHANGE 3 - Starting Creation Screen

For our Deaf participant in particular, in starting the posting process, she was concerned about clicking on the word "audio". Other users were confused about which buttons were clickable.

low-fi:

med-fi:
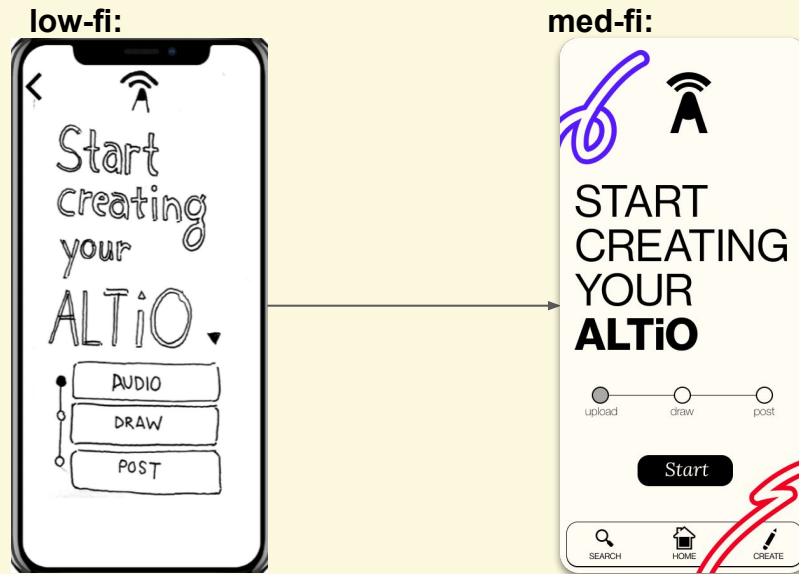
SOLUTION: Change content uploading flow - make the start screen more intuitive by changing buttons, allow for different types of content to be uploaded to allow all to participate.

Revised Interface Design

MAJOR DESIGN CHANGE 3 - Starting Creation Screen

Our Deaf participant was concerned about choosing "audio".

Participants were frequently confused by the design on this page - "audio" is the starting point, and the only one users can click on, however "draw" and "post" both look like clickable buttons.

We changed the starting screen to look more like a progress bar, and through having a single button, we made it clearer where to click in order to start the posting process. This progress bar is present on other screens in the posting process to make clear where they are in the process.

"Audio" is replaced with "Upload" so that content is not limited to audio, and for ease of mind for participants.

Revised Interface Design

SIMPLE TASK: Interpret audio
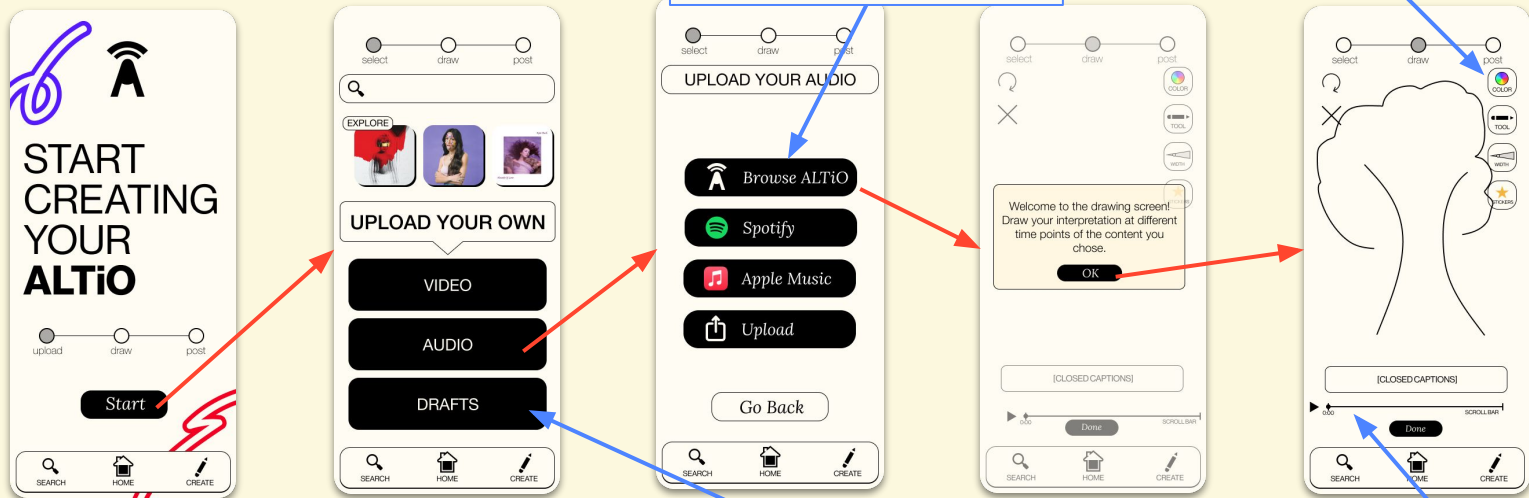
Audio can be uploaded from different sources, or chosen from the existing audios in ALTiO.

Drawing screen to draw interpretation, different pickers to change color, tool, thickness, or to include stickers.

Some screens are missing for space concerns, but this is the overall flow.
Stickers and other presets are included for users who may not be as comfortable with drawing but still want to participate in the app experience.

Video and or audio can be uploaded, or continue posting from a draft saved.

Drag scroll-bar to move to different timestamp to create new drawing at different timestamps.

Revised Interface Design

MODERATE TASK: Explain and clarify interpretation

Illustrating the UI of how clarifications showed up was key in this prototype, as it is something we left out of the last prototype, and is quite important to the clarity and usefulness of the interpretations.

Users can add the ALTiO's **name**, **clarifications,** or **caption** by tapping.
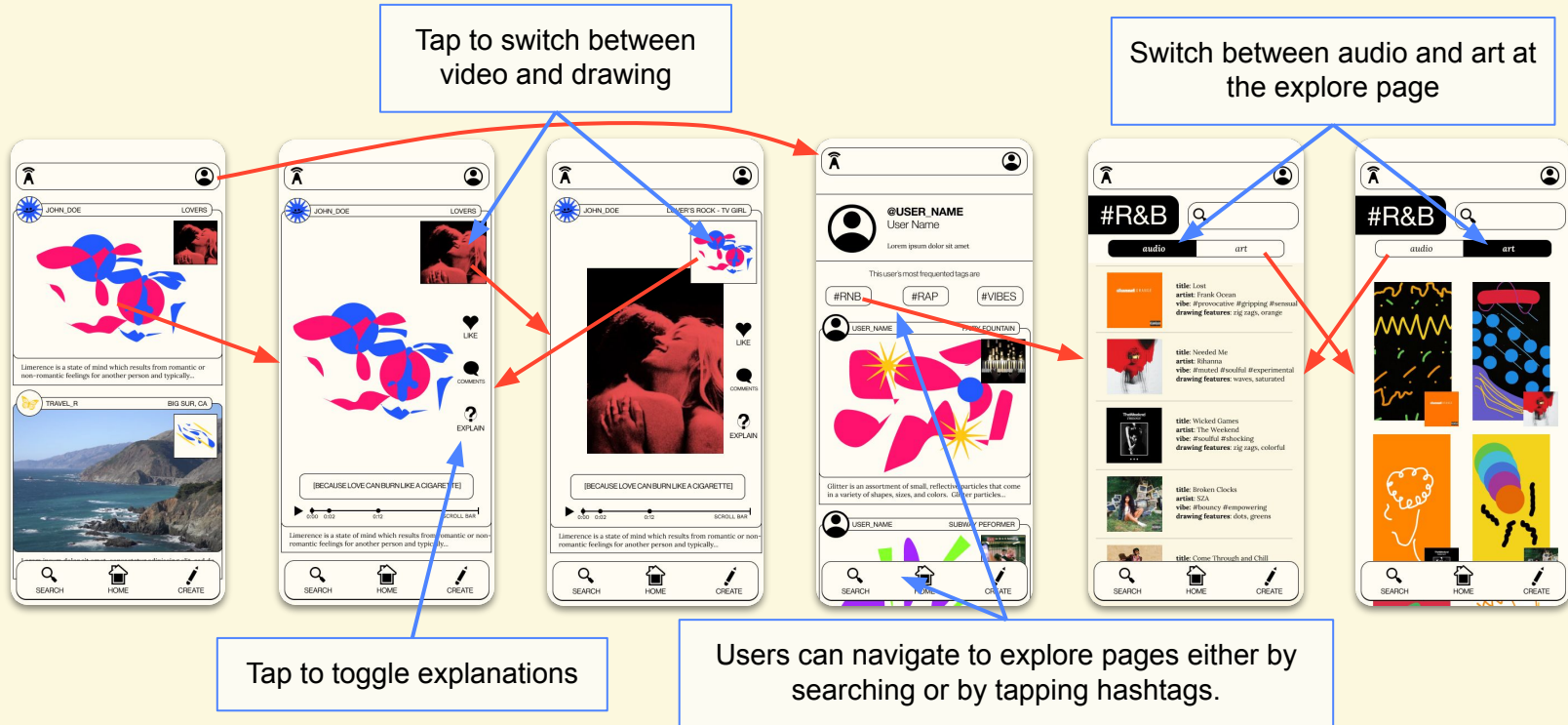
The posted ALTiO is now in the social feed.
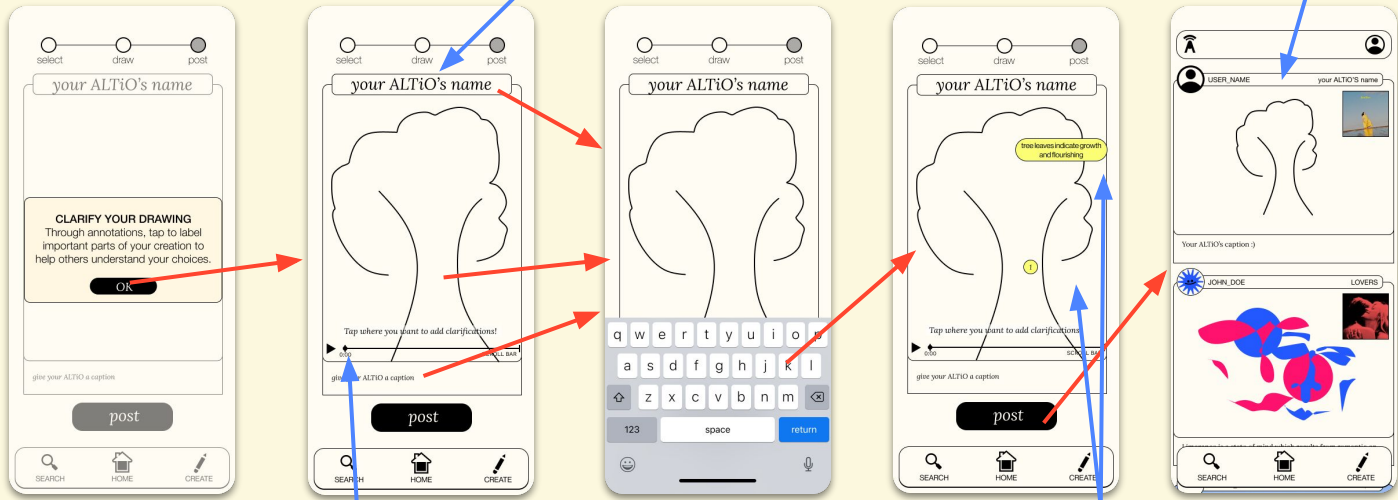
The scroll bar allows for clarifications to be written for different time points.

Clarifications show up after tapping the screen and typing them (click to open and close)

Revised Interface Design

COMPLEX TASK: Interact with various interpretations and artists on the platform

Tap to switch between video and drawing

Switch between audio and art at the explore page

Tap to toggle explanations

Users can navigate to explore pages either by searching or by tapping hashtags.

Prototype Overview

Design/Prototyping Tools

Figma was our primary design and prototyping tool.

CONS
- None of us had a ton of familiarity with Figma
- Somewhat steep learning curve
- Limitations in drawing and audio content for prototyping

PROS

- Plenty of resources (class workshops, online tutorials)
- Interactive component functionality
- Collaborative workspace, easy to work in as a group
- Components and styles to make styling consistent
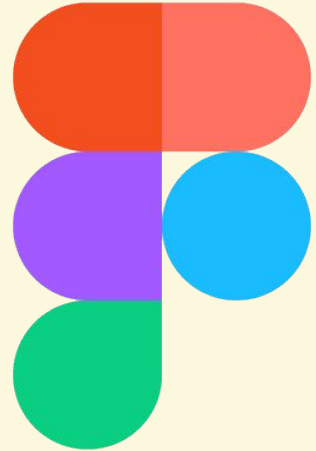
Prototype Overview

Limitations/Tradeoffs

- Lack of content - posts, profiles, audio, music

- Figma lacks drawing features and audio playback for prototyping

- Users cannot upload their own content directly

- Not all buttons are clickable due to constraints on time and space available

Between the four audio options, only the "Browse ALTiO" button is clickable here, as we could not connect Spotify or Apple Music to our prototype.
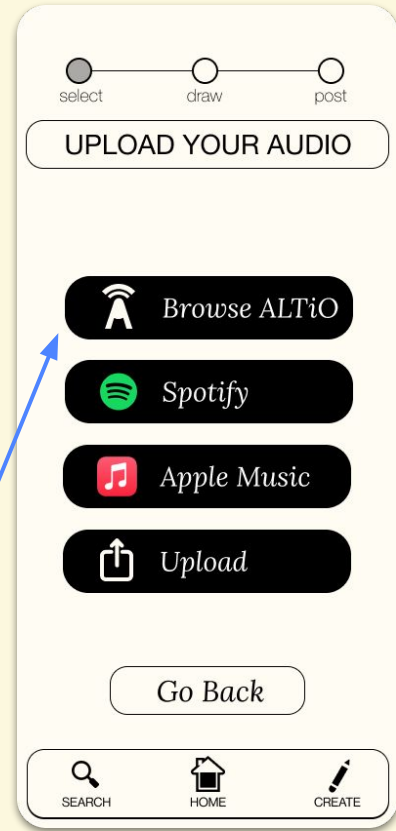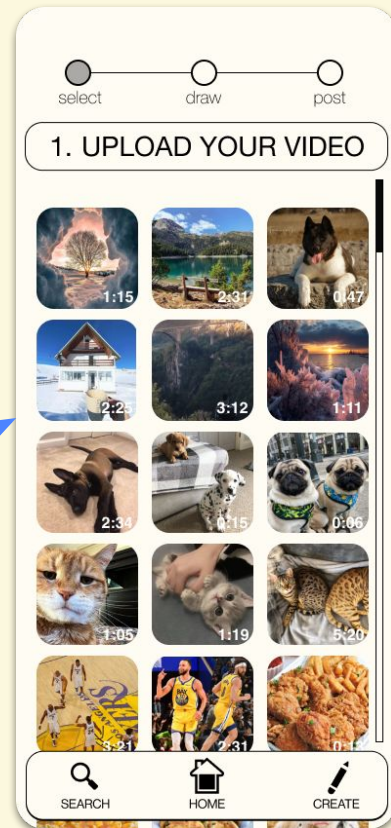
Prototype Overview

Wizard of Oz Techniques

- For uploading audio, users will pretend to upload their own content as this functionality is not available in Figma.

- The "drawing" takes the user through a series of screens where a pre-drawn interpretation is created by tapping through.

- For prototyping, we would play audio while users interpret.

Uploading video content pulls up fake video thumbnails that are meant to be the user's.

Prototype Overview

Hard-coded Features

- As there is no user content nor a database, all user and post related content is hardcoded.

- The explore audio section and recommendations of audio/drawing are also hardcoded as we are limited in time and scope.

- Typing in information is hardcoded (captions, titles, clarifications)

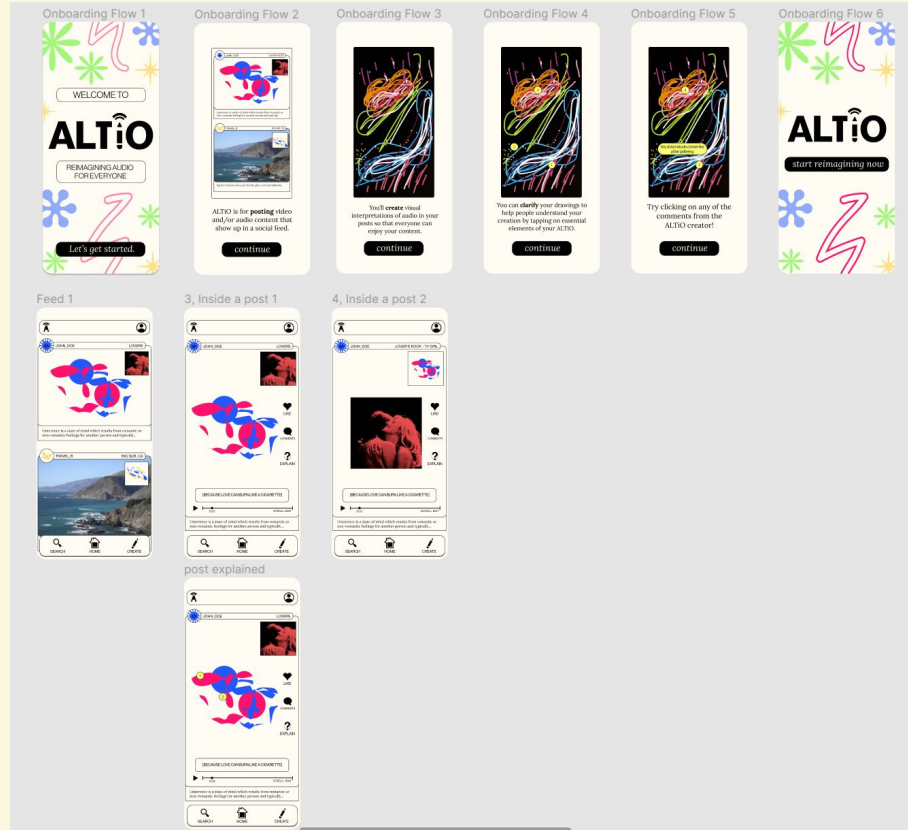Typing pulls up this keyboard, but nothing typed is actually recorded
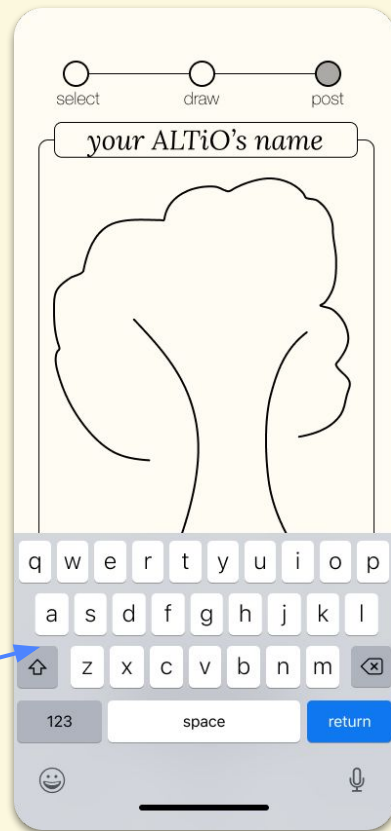
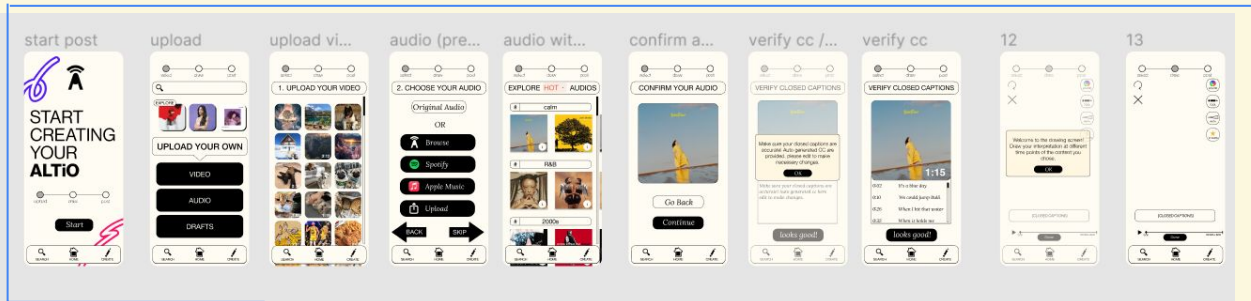# PROTOTYPE LINK

MEDIUM FIDELITY PROTOTYPE
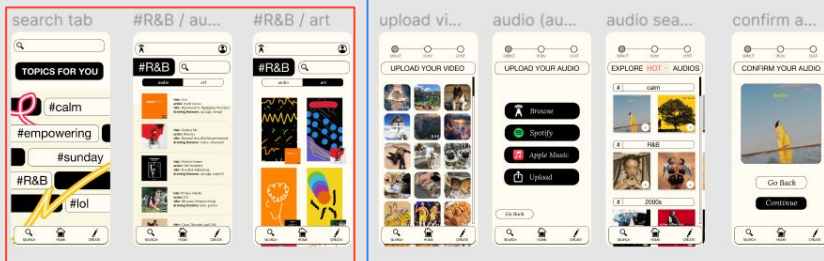
APPENDIX

Onboarding Flow

Post Flow

APPENDIX

Create Post Flow

Explore Flow

Profile page

APPENDIX

Creating Interpretation Flow