

ASSIGNMENT 5

Annote Lo-Fi Prototype Testing

INTRODUCTION

Meet the Team



Lindsey R.
Team Manager



Samuel H.
*Software Engineering
Manager*



Mark O.
*Usability Testing
Manager*

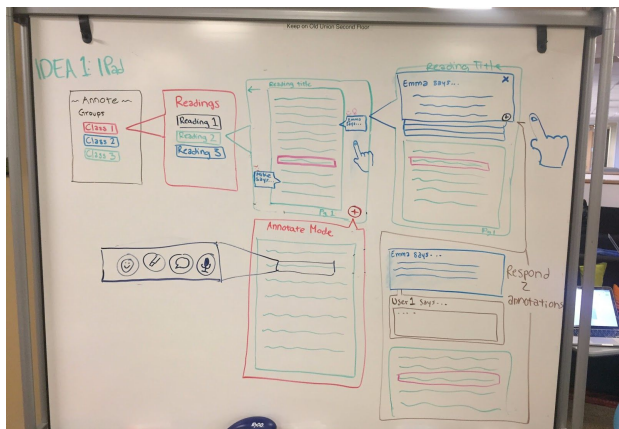


Nicole HH.
*Design
Manager*

We are the team behind Annote, an application dedicated to creating a comfortable and productive environment for sharing thoughts and ideas about class material. Our mission is to bring everyone into the conversation. Students enter the college classroom with unique backgrounds and varying personality types. For students coming from under-represented backgrounds, the classroom environment can feel intimidating or even unwelcoming. Annote makes every reading assignment into an online collaborative environment where these students can share and learn others' perspectives and insights in an intuitive and more comfortable way.

SKETCHES

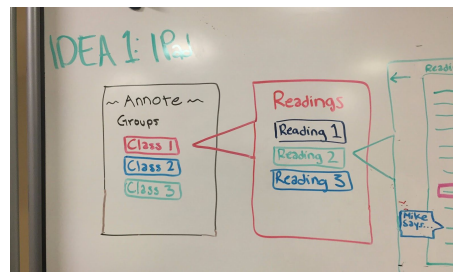
Concept Sketches

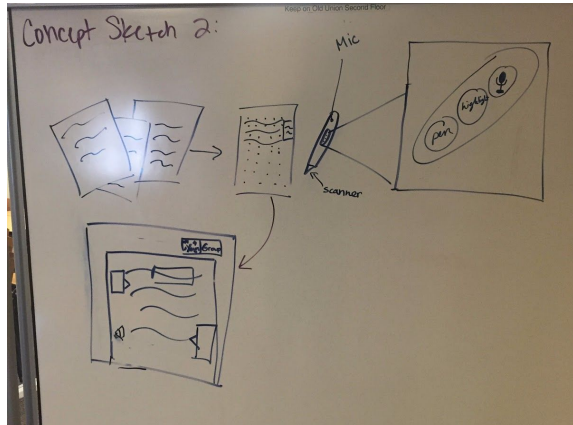


Concept sketch #1: iPad app, unified interface for viewing and creating annotations using touch screen

Modality: iPad app

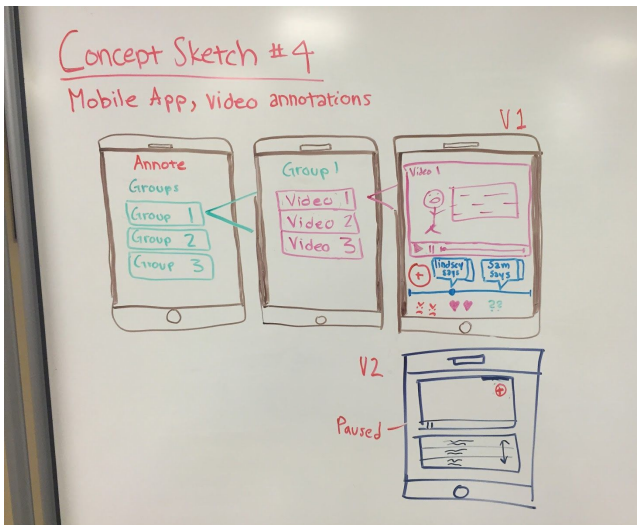
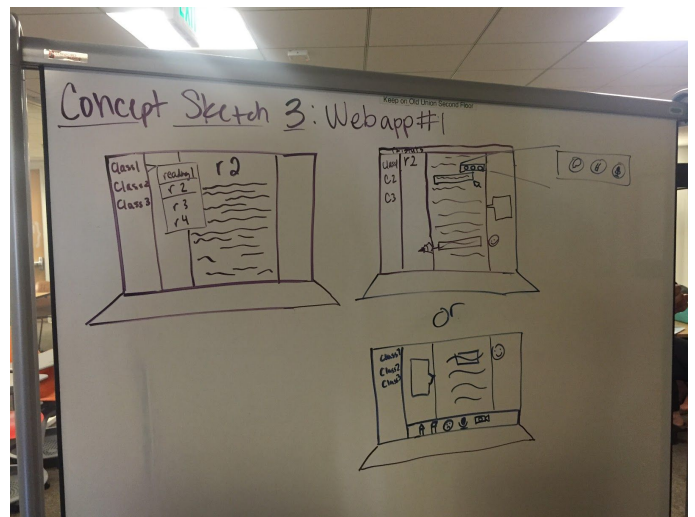
Inspired by: RapGenius.com, Medium.





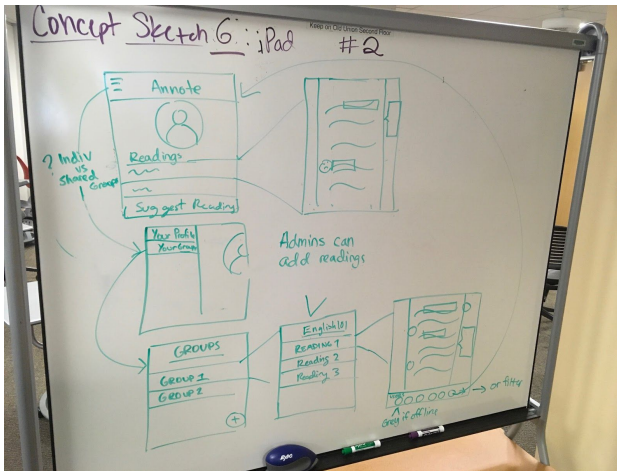
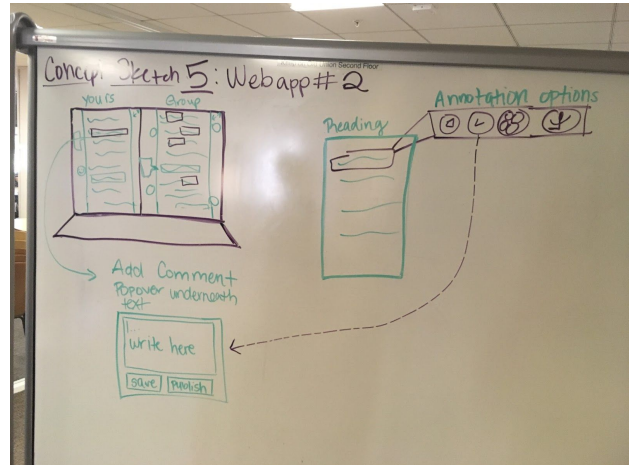
Concept Sketch #2: Physical to Digital annotation
Modality: Pen on paper, paper to digital
Inspired by: LiveScribe

Concept Sketch #3: Web application, unified interface for viewing and creating annotations
Modality: Web Application
Inspired by: RapGenius.com, Medium



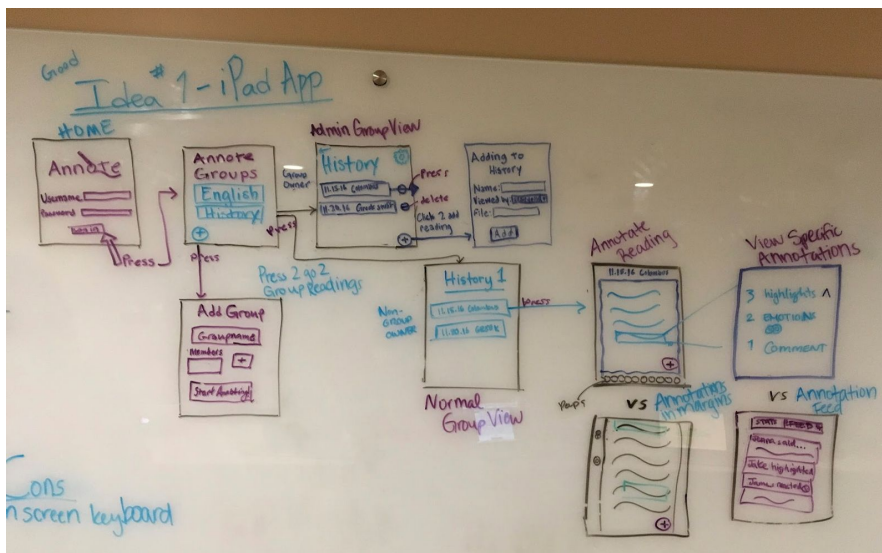
Concept sketch #4: Mobile application,
 Dynamic video annotations
Modality: Mobile
Inspired by: Facebook live

Concept sketch #5: Web application 2, side by side annotation interface.
Modality: Web app
Inspired by: Rap Genius

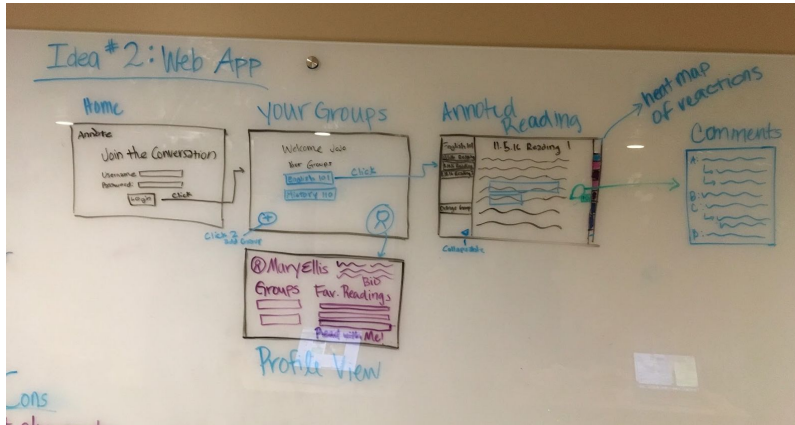


Concept sketch #6: iPad app #2, user profile centered annotation network
Modality: iPad
Inspired by: Quora, rap genius

Top 2 Designs



UI Sketch #1
 iPad app with ability to annotate quickly and navigate other's annotations. Group structure to organize readings



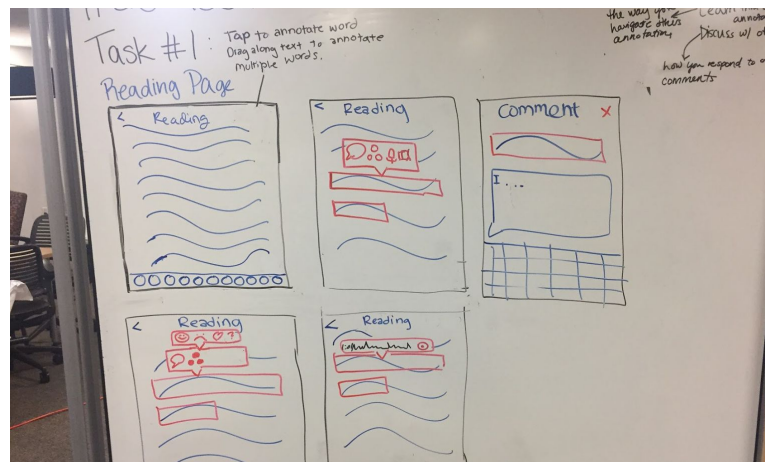
UI Sketch #2

Webapp with ability to annotate quickly and navigate other's annotations. Group structure to organize readings

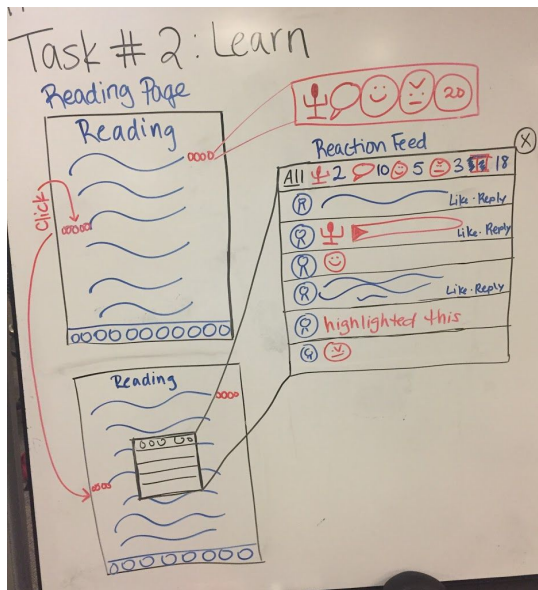
SELECTED INTERFACE DESIGN- IPAD DESIGN

Storyboard of 3 Tasks

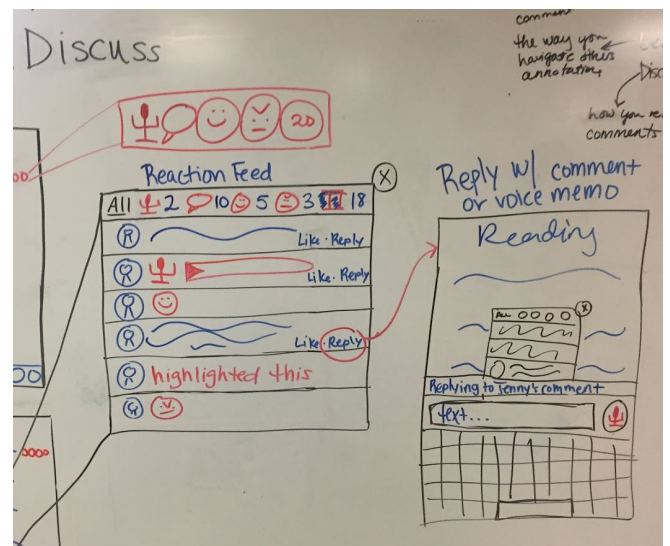
Task 1- Annotate text



Task 2- Explore other's annotations



Task 3- Discuss with others



Reason for Selection

IPAD

Pros:

- More skeuomorphic
- More mobile
- Possible without internet
- Simple design to allow for seamless transition from paper annotating to ipad annotating

Cons:

- Onscreen keyboard
- Less accessible to our demographic

WEB-APP

Pros:

- More people have laptops
- Text can be larger
- Potentially more ways to differentiate between annotations

Cons:

- Not mobile
- Requires internet
- not skeuomorphic

The pros were more compelling for the iPad because we wanted the experience of annotating with Annote to be as similar to paper annotating as possible. We also felt as though the necessity of simple design that comes with designing for iPad would be good for a platform like Annote. We wanted to assure the user experience was as simple as possible. We are hoping that in time tablet based apps will become more accessible and based our decision off of this ideal situation. Additionally, the cons associated with a web-app were hard to ignore.

Prototype

Our prototype was made of paper with a paper iPad and paper screens that were switched out as buttons were pushed. Sticky-notes were used to represent pop ups on the app. We also gave users a pen that could be used to mimic the process of highlighting. They were told the limited ability of that pen.

Screens

Task 0: Access Class Readings

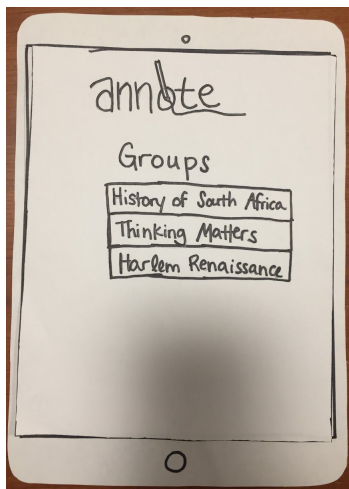


Fig. 1
Home Screen

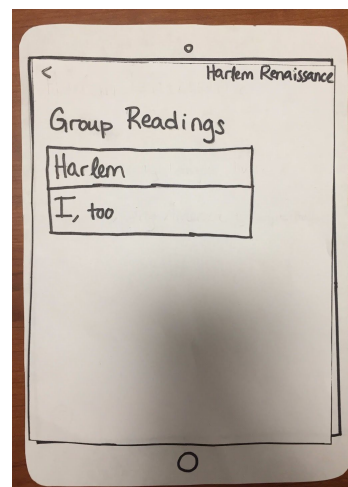


Fig. 2
Readings Screen

Task 1: Annotate text

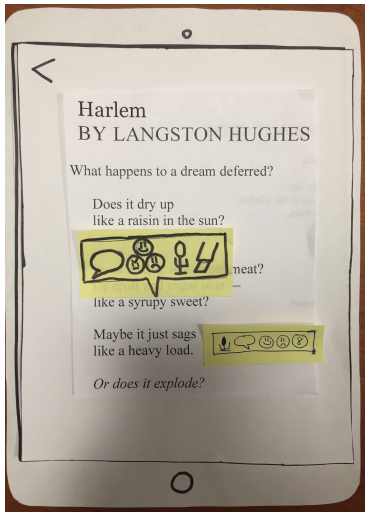


Fig 3. Annotation Screen

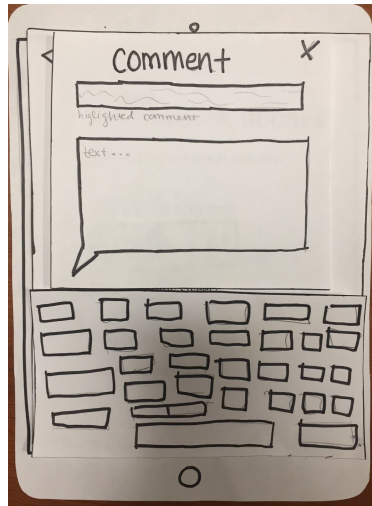


Fig. 4 Comment Screen

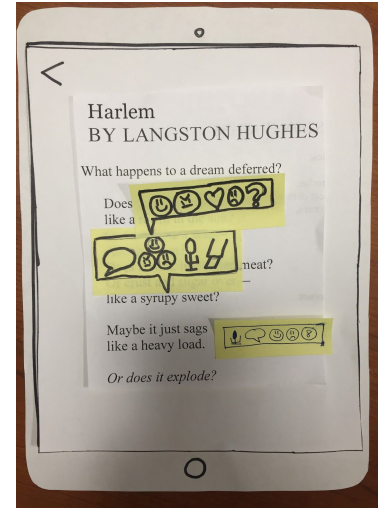


Fig 5. Emoji Reaction Pop Up

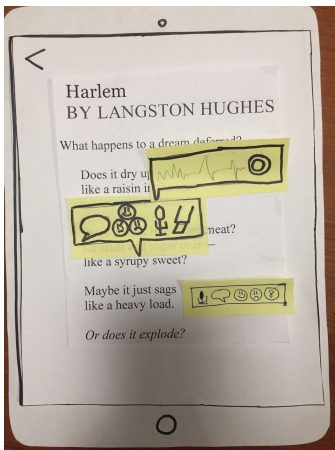


Fig 6. Voice Memo Annotation Pop Up

Task 2: Explore other's annotations

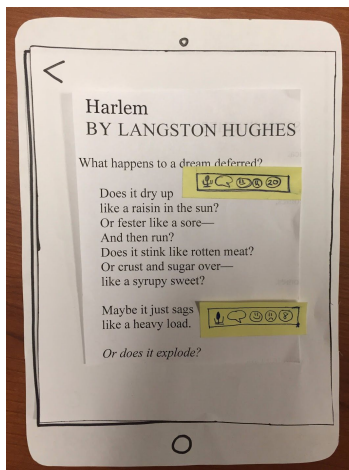


Fig 7.
Annotation Indicators

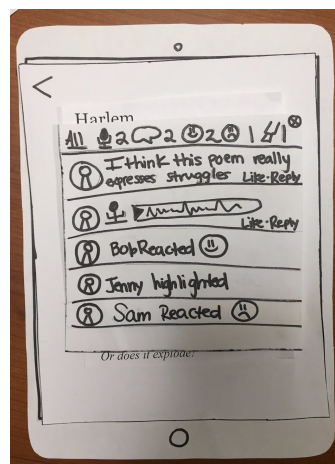


Fig. 8
Annotation Feed

Task 3: Discuss with others

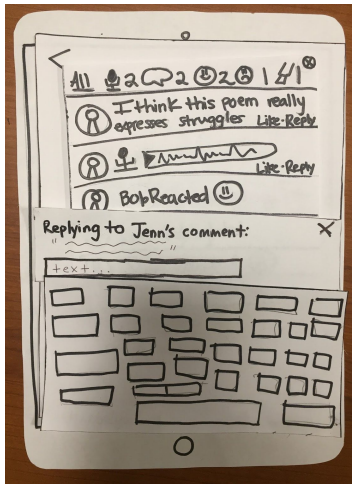


Fig. 9 Reply Input Text Pop Up

Entire System

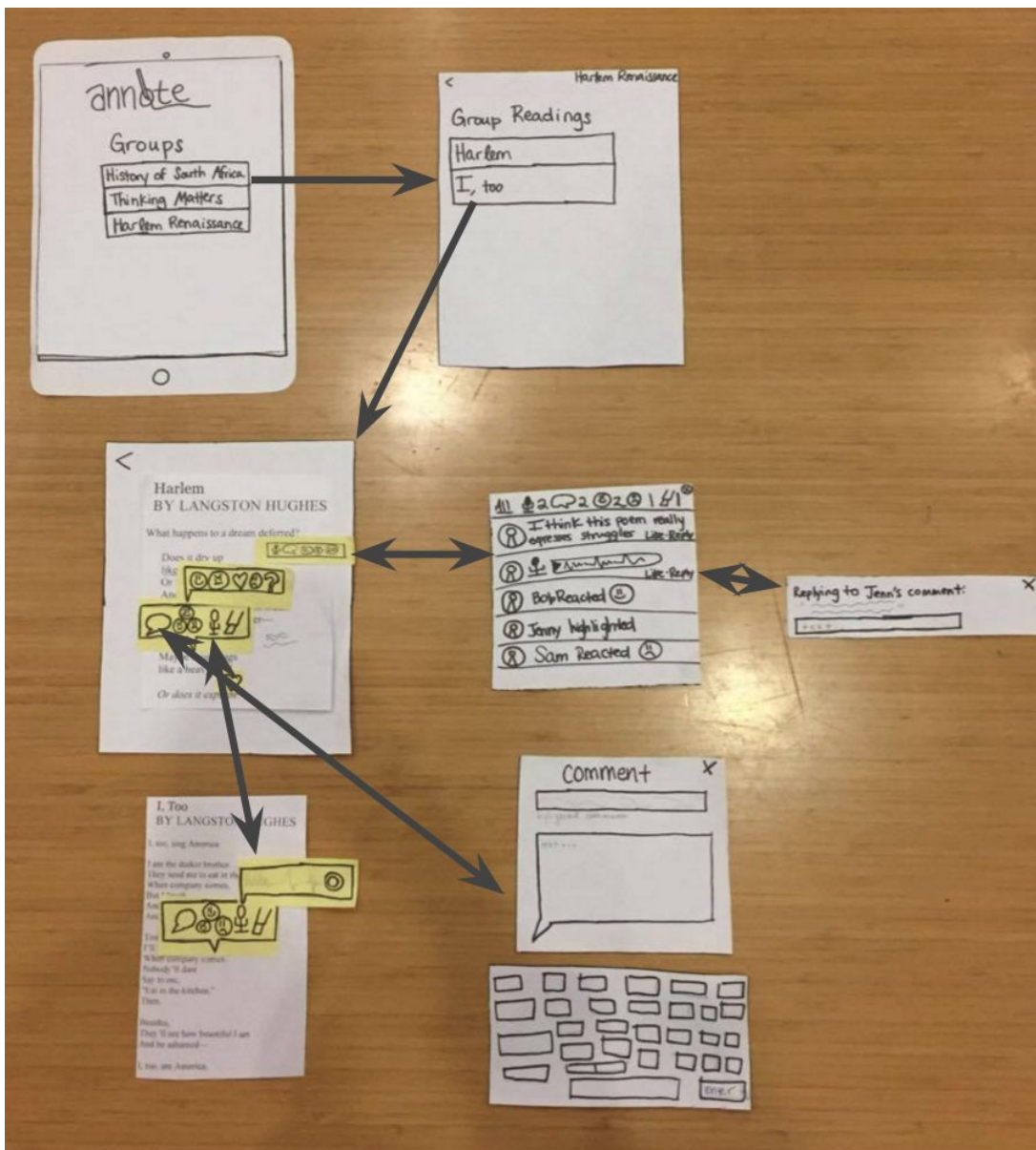


Fig. 10 Entire prototype

Method

a. Participants: demographics, how recruited/compensated

1. *Kyle, Stanford freshman, man, first generation and low income, studies STEM. Sam's personal connection.*
2. *Maddie, Junior at Menlo College, woman, studying entrepreneurship/business. Random student sitting in a student union area at Menlo College campus.*
3. *Esmeralda, Junior at Menlo College, woman, studying accounting. Random student sitting in a student union area at Menlo College campus.*

b. Environment

i. Kyle was interviewed at Tressider Student Union. Food court area. Moderately crowded. A small table, three of us sitting around the participant.

ii. Maddie and Esmeralda were interviewed in student union area at Menlo College campus. Rather empty, large room. On a table. All four of us sitting around the participant.

c. Tasks

- I. Explore this new app and annotate your assigned reading.*
- II. Find a way to respond to a classmates annotation.*
- III. Find multiple ways to annotate the reading*

d. Procedure

We introduce ourselves to the tester and make casual conversation. Then, we explain the general structure of the prototype test: As the test administrators, we are interested in their impressions, reactions, and thoughts toward our platform. There are no right or wrong ways to interact with the platform, so we will stay quiet unless there is a compelling need to speak.

We ask them to be curious and explorative. Then we explain that they should pretend they've been given a reading in class to annotate. The app's name is Annote, and it is a collaborative annotation platform. We then give them the first task and observe them use our platform.

e. Test Measures

Our main goal with these tests was to find out how well new users to our platform would be able to use the platform for its intended function. This meant that we tried to keep explanation and explicit instruction-giving to a minimum. These are the three main criteria that we used to test how successful or goal was.

Comprehension of intended function: The more a given participant understood what the intended features of the platform were, the more successful we considered our prototype.

Use of annotation tools: one of the tasks we assigned users was to annotate a reading. Even if a participant succeeded in this task, the prototypes success was based on how many annotation “methods” they used -- the four methods were comment, emotion reaction, voice memo, and highlight.

How quickly they lost interest: A simple metric for how engaging our platform was is how long users spent with it. The longer they stayed, we assumed the more interesting it was to them. (Times ranged from 2 minutes to 8 minutes)

Results

Participant 1:

Participant 1 is a Stanford freshman interested in majoring in an engineering field. He is black and from a low-income, first generation background. For the first task of annotating the reading, he quickly found out how to highlight text. The first annotation method he used was commenting. At the commenting page (Fig. 4), he found the keyboard intuitive, but had difficulty in determining how to submit the comment. He pressed the “X” button at the corner of the app. Although he correctly identified the intended functions of the various annotation methods, he didn’t use any of them. For the second task of exploring other group members’ annotations, Participant 1 found the group annotation feed (Fig. 8) quickly because he said he was immediately drawn to the annotation indicator buttons (Fig. 7) that would take him there. However, he thought that the symbols on the annotation indicator were actually buttons that would allow him to further annotate the text. When Participant 1 saw the annotation feed, he immediately recognized it as a stream of his classmates’ different annotations. For the final task of discussion with others, which you do from the annotation feed, Participant 1 immediately “liked” the comment on the annotation feed, while also saying that he would respond with a comment only when he had strong feelings about someone’s highlight.

Participant 2:

Participant 2 is a Latina Junior at Menlo College studying Accounting. For Participant 2, using and exploring this prototype to complete the tasks was challenging starting from Task 0. It was unclear to her that the groups on the homescreen (Fig. 1) could be classes that she was in. For the first task of annotating the reading, the participant did not have an inclination to create her own annotations. She seemed to want to explore the platform more than anything, so we allowed her to do that, noting that she never completed the first task. The second task, exploring other group member’s annotations, also took Participant 2 a bit longer to grasp. She pressed the annotation indicators, and when the annotation feed popped up, she thought that the filtering buttons at the top of the popup were either meant for her to see her own annotations or for her to use as annotation tools. Pressing the filters, thinking they were annotation tools were her only

attempts at annotating the text herself. After cycling through those options and realizing they did not work the way she thought, she understood that the buttons at the top were filters and that she was looking at a feed of all of her group members' annotations. Like the first task, the participant seemed to have no interest in the third task of discussing with others. While observing the annotation feed, she was more interested in reading other's reactions and exploring by clicking on different group member's annotation types, but she did not find the need to reply to anyone's annotation.

Participant 3:

Participant 3 is a white woman in her Junior at Menlo College studying Entrepreneurship and Business. Participant 3 only began to think about the first task, annotating the text herself, after she had read through the annotation feed. It took her many flips through the different screens and also trying out the filtering buttons at the top of the annotation feed, before understanding that she had to swipe her finger on the words of the text in order to annotate them. After first wanting to comment, she ended up exploring all of the annotation options (Fig. 3 - Fig. 6). The second task of exploring others' annotations is what she was immediately drawn to when given the text because of the annotation indicator buttons. She picked up that the next popup was an annotation feed and she began to read each of the comments written. The two annotations she wanted to interact with were a group member's voice memo and a group member's highlight. She clicked on highlight to see what they highlighted, not understanding that the entire annotation feed was associated with one only 1 small piece of the entire text and that that piece was what was highlighted. This participant had no interest in discussing the text with the group members. After reading the comments and "listening" to the voice memo, she exited the popup screen without pressing the reply button.

Discussion

We found the hardest task to accomplish for our participants was the one that is potentially most important- adding annotations. Our participants had a hard time realizing right away how to add an annotation. Eventually our participants would usually ask us if they could underline a piece of text and then would discover the annotation feature. We hope that an actual application would lead to this type of exploration. Additionally, we believe a potential solution to this problem is onboarding that describes the need for highlighting to access the annotation possibilities. The *annotation feed* which we used to accomplish the task of 'exploring other's annotations' seemed to be a success. Participants quickly figured out what the annotation feed was. The only thing that seemed to be missing was assuring that the quote being annotated was visible in the feed. That was an error on our part and will be added. The button to get to the annotation feed seemed to be too similar to the annotation selection tool. Participants thought they could use the button to add an annotation. We hope to make the button look more like a stack of icons, rather than a row of buttons. Participants also seemed to find the process of replying to annotations pretty straight forward. We need to make sure in both commenting and replying mode that there is a simply button for publishing writing.

Perhaps we are most interested in diving more into what types of annotations are most interesting to users. Most of our participants focused on adding comments and would occasionally interact with the voice memo feature and emojis. But we wonder what types of annotations are most compelling and useful and which are potentially superfluous. Additionally, we want to discover if there are other ways to make the annotation adding process more intuitive. We considered adding a plus button but decided it would likely become unnecessary as someone became more familiar with the app. We hope that an onboarding process will make it clearer for users. We hope to explore these possibilities in our next prototyping process.

Appendices

[Consent Form](#)

[Raw Interview Notes](#)

[Close Up Sketch Photos](#)