Design Dream Team
November 29, 2020

FALL 2020 INTERACTION DESIGN PROJECT

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Access Code: https://github.com/meganmrichardson/CMSI-370-Application

MILESTONE 3 - SYSTEM PROTOTYPE & EVALUATION PLAN

PROJECT DESCRIPTION

gather is a social media platform that promotes inclusivity, specifically for underrepresented communities. We want to create a safe space for these groups to openly communicate and share advice with each other.

For this milestone we have created a detailed prototype of our interface. In this writeup we provide screenshots of our prototype and walk through the navigation of the application. We have also developed a plan for evaluating the usability of this prototype.
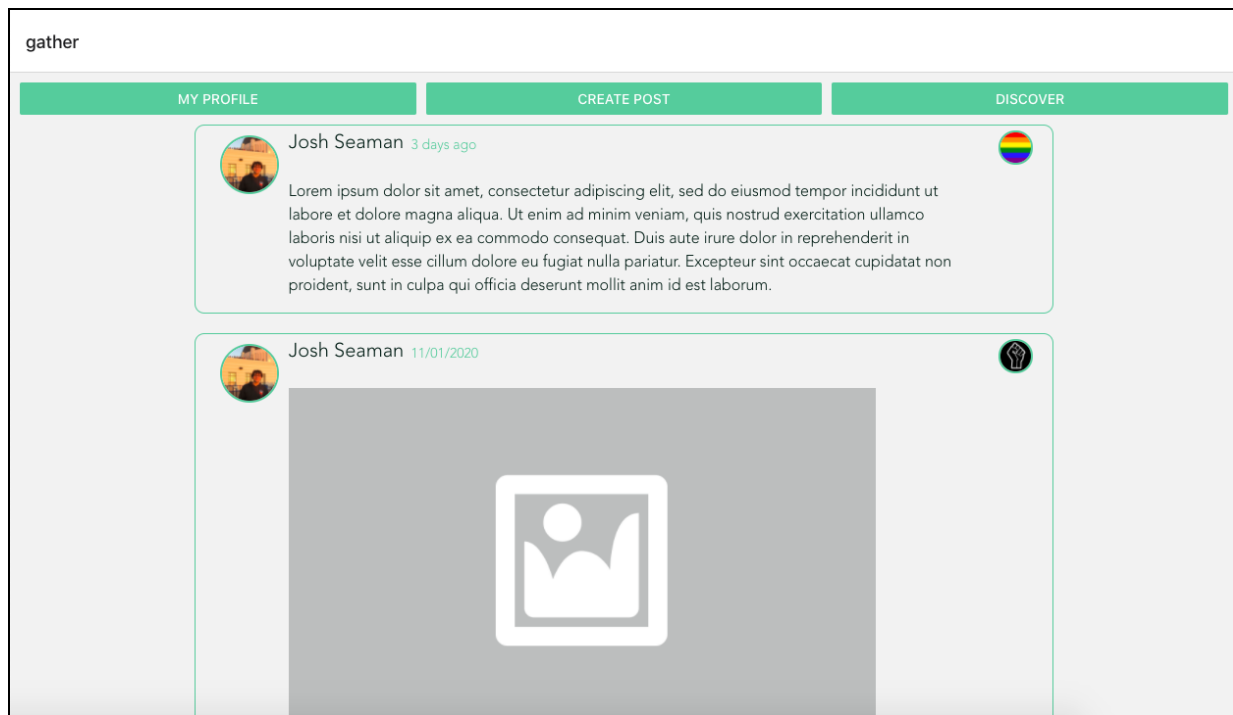
Login Page

The login page has input boxes for the user's username and password. The navigation leads to the home page upon pressing the "LOGIN'" button. The system takes in the username as a variable to pass it to the "My Profile" page. Once signed in, the user sees their feed as shown below.

Home Page

The home page doubles as a scrollable feed page. There are three buttons at the top that allow the user to navigate to other pages in the application: "My Profile", "Create Post", and "Discover". The main purpose of this screen is to show the user all of the most recent posts from all of the communities they are a member of. This feed also displays your own posts. Each post includes the user's profile picture, username, a time stamp, the chosen community, and the post's contents.

My Profile Page
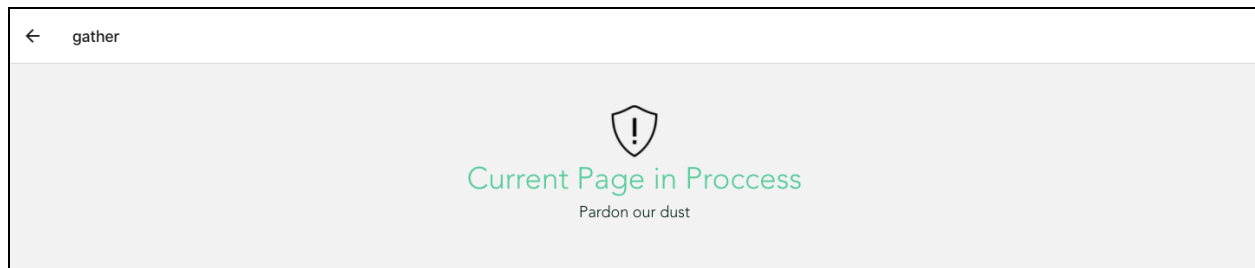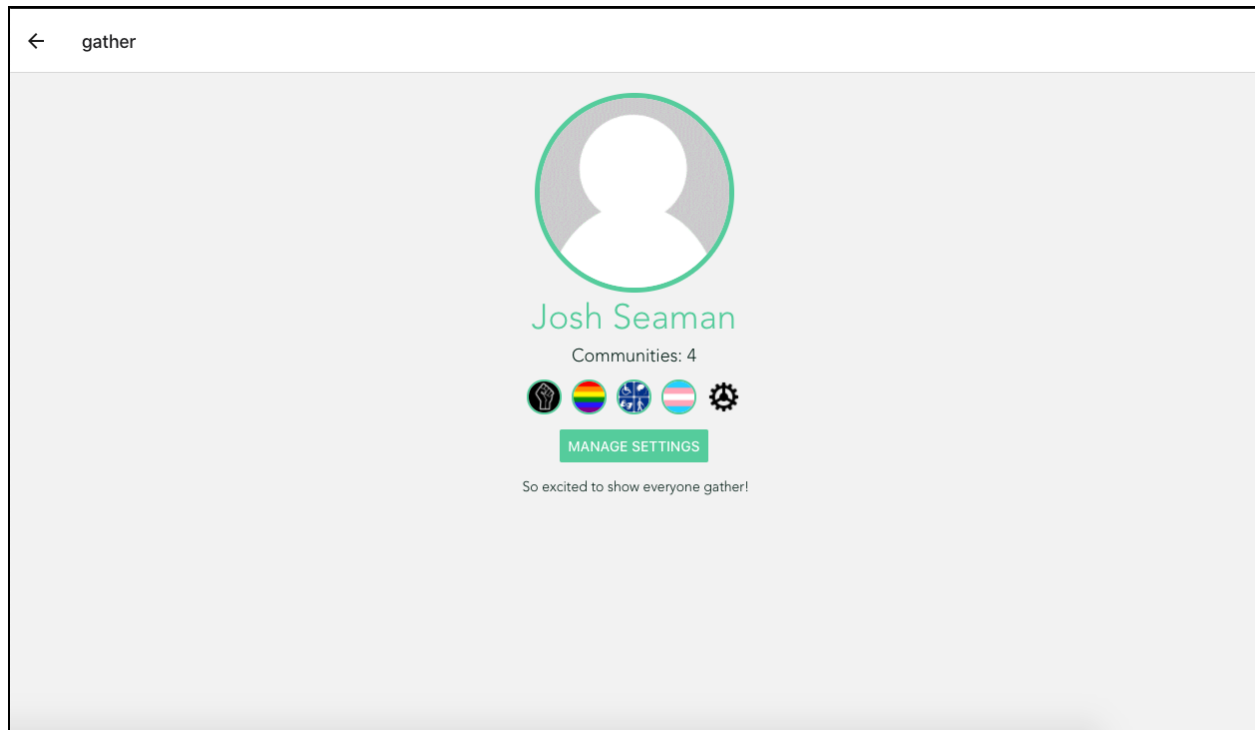
The "My Profile" page includes the basic account information: username, user photo, communities they are a member of, bio, and a "MANAGE SETTINGS" button. The profile settings page is not yet implemented. Instead, the button leads the user to a work-in-progress page that informs the user that we are currently still working on implementing that feature.

Create Post Page

The "Create Post" page allows the user to customize a new post. There are a few different selections they must make:

- The post title
- The contents of the post body
- A photo, if they want to add one
- What community this post is relevant to

The user specifies the community page they wish to post to by selecting from the drop-down shown above. Once the post is submitted (the user hits the "SUBMIT" button), the user is redirected back to the home page where a new post appears in the feed.

Discover Page
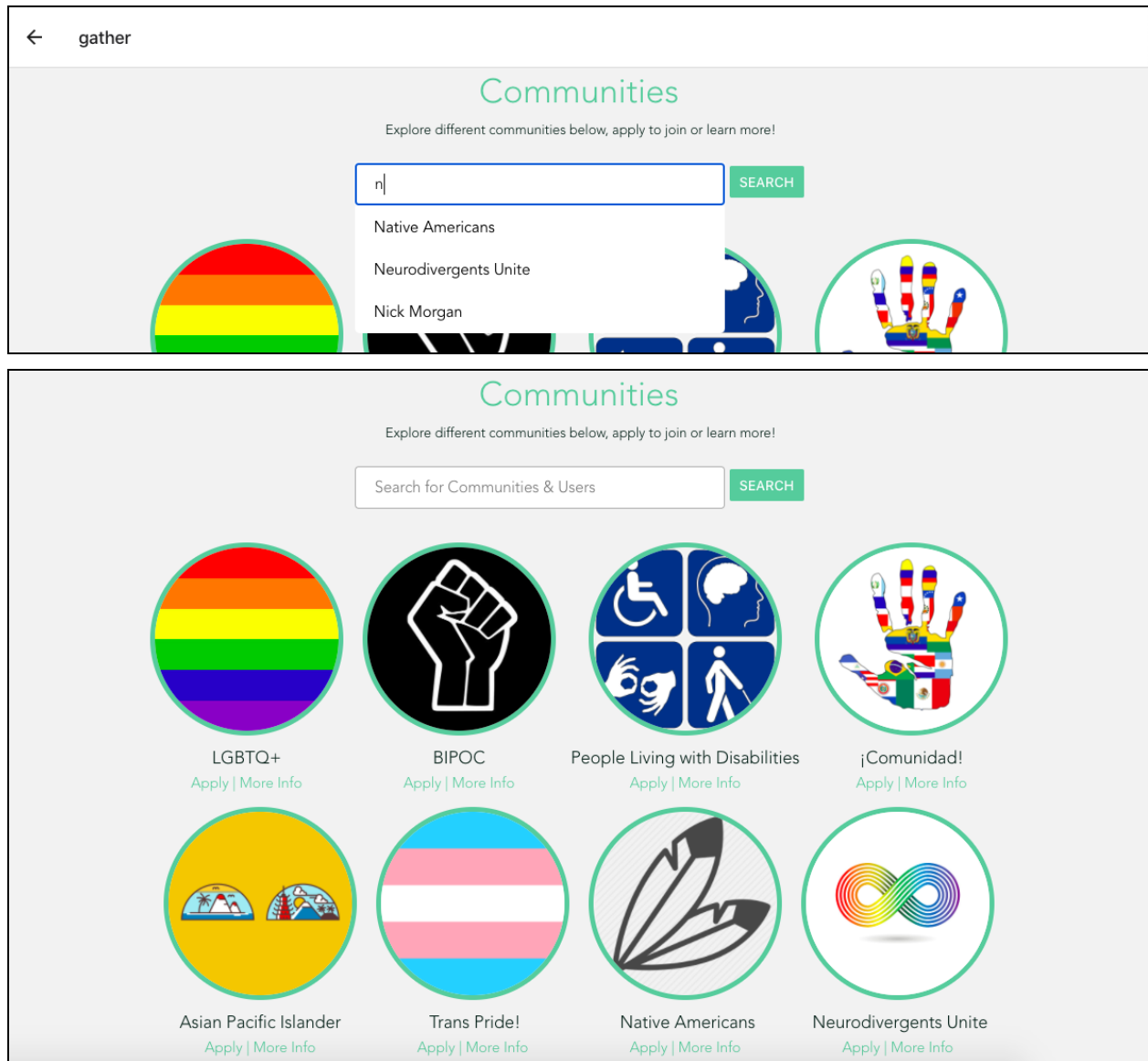
The "Discover" page allows the user to search for communities and users as well as view all of the communities to apply to join. The search uses an auto-suggest feature that suggests search results based on the user input. At this moment the search button leads to the work-in-progress page, as we are still working on implementing it. The communities beneath the search button allows the user to see all of the main communities. They can click the links to visit community pages and learn more. This feature is not implemented yet, so it brings the user to the work-in-progress page.

FEATURES

Login: On the login page, the participant is able to input their username and password into two separate react-native input boxes. There is also a react-native button to submit. This info is then imported to the personal profile page.

Dynamics Posts: On the home page, the user is able to see sequentially organized posts with the user's profile picture and name, the community it was posted to, the post title, and the main body of the post. Each post is structured within a bootstrap table and the posts' information is housed in an array of dictionaries.

Navigation Bar: On the home page, the user is able to select which page they would like to navigate to. This is broken down into three descriptive buttons: my profile, create a post, and discover. The navigation bar is coded with react native's built-in navigation system.

Search Bar: On the search page, this feature allows the user to search for a specific user or community based on what they type in the search bar. As you type, the bar will give you auto-completed names/communities based on our database of information. The search bar was created with vanilla Javascript and a react native input box.

Create New Post: On the create new post page the user is able to create a post and include a title, body, and attach an image. The user is then able to select from a dropdown menu which community they want the post to be posted to. When the user submits a new post, the home page is updated with a new post. This feature was created with a variety of systems including react native textboxes and javascript.

USABILITY SPECIFICATIONS

To asses our effect of the interface we ran two specific tests on our page within our group:
1. Learnability: We measured the time it took to execute creating a post and adding it to a community. We found that with our hyperlinks that are displayed on every page at the top and the list of "title - content - group - submit" we created a very efficient and effective system for a user to create and publish a post.

2. The second test we ran was also learnability: For this test we brought in an external user and asked them to figure out how to discover a group and request to join it. For this test our results were also very effective because the user was able to locate the discovery page and see a clear list of all the different groups and was even able to locate the more info tab in a very effective time. This showed us that our ease of access was at a level that allows users to work quickly and thoroughly through our whole interface.

One problem we encountered is that it is not as clear cut how open our communities are for users. When a user first logs in and explores it seems as if they can post to any group of their wish. It is not until they open our discovery page that they realize you have to request to be in a community.

Each of our pages and links have a specific functionality that are targeted towards creating an ideal user interaction. Starting from the top of the site, each one of the links lead to a self-explanatory page, the my profile button leads to a page where you can view your profile: picture, name, previous posts.
- The create post link leads you to a page where you can add text and image to a post as well as specify which community you are posting to.
    - On the create post page you can add a title as well as a body paragraph and an image. Below that there is a drop down menu of all the groups you are a part of that allows you to choose a specific community to post your piece.
- The discover page allows you to find new communities to join and explore the different groups our application has to offer.
    - In the discover page we have icons of the different groups. By clicking on the icon it will lead you to that group, where you can either request to join the group or explore 'more info', which gives you more information on the group and you can learn about what it represents before requesting to join.

Key interactions:
1. Logging in to your account
2. Browsing and interacting with your timeline for posts
3. Creating a post
4. Searching a minority group

Intended Use of the Interface: This web application is a social media application for individuals in underrepresented communities who want to communicate with others in

their community/communities. Users can post within their communities to connect and help each other.

User Population: Our users include anyone who identifies as part of one of our communities. This includes anyone who is a member of an underrepresented group in society.

Target/Intended User: Although our users include anyone who identifies as a part of an underrepresented group in society, our *target* audience is the LGTBQ+ community.

Application:

>   Frequency of Use: Users can interact with our application as frequently as desired. Since gather is a social media application, our goal is for users to use the interface daily to interact with others.

>   Environment/Mobility: Our application can be accessed online on any type of device. The mobile app functionality is not yet fully developed, so it is accessed only as a web app at this stage of development.

Main Scenarios of Use: We anticipate that our application will mainly be used as we intend for it to be used: for users to post and communicate with others in the user's communities. Some main scenarios of use include:
- Personalizing their profile: accessed through the "My Profile" button on the home page.
- Creating a new post to add to one of their communities: accessed through the "Create Post" button on the home page.
- Finding and joining new communities: accessed through the "Discover" button on the home page.
- Searching for friends/other users: accessed through the "Discover" button on the home page.

Error Control: We try to minimize possible user errors before they occur. We ensure that all the buttons have a reaction when pressed, even though some may just lead to a work-in-progress page, as our application is still in the design process.

>   Misuse Examples: Some ways a user can misuse the interface include:
>   - Joining and posting to a community that they don't personally identify as a member of. This could lead to users who actually belong in that

community being less comfortable sharing in the page themselves. This also defeats the goal of our application: to create a *safe* space for members of underrepresented groups.

- *Solution*: We are going to implement a feature where users must apply to join a community. This provides a level of security to community pages.
- Creating and posting an empty post (i.e. no text or image) to a community. This is detrimental to the community pages as it takes up valuable space, yet is not helpful to anyone.
    - *Solution*: We are going to ensure that each field includes some text before allowing the user to submit.
- Trying to search for and join a community that doesn't exist. We have a limited number of communities. If a user cannot find their specified community, then our application is not useful to them.
    - *Solution*: In the future, we are going to implement a feature where users can create new communities. In this case, they would start as the administer in charge of deciding who is allowed in the group (i.e. part of the community.
- Using hate speech. We want to create a safe space where users feel protected from any hurtful language.
    - *Solution*: We want to implement a feature that recognizes when hateful language is used in posts. We also want to add a report button to each post, so that our team can go through and delete any posts containing any form of hate speech.

INITIAL EVALUATION & TESTING PLAN

<u>What sort of benchmark task would you have users perform to help evaluate the system?</u>

There are three main benchmark tasks that would give us an almost complete evaluation of the current state of Gather:

1. A new user logging into the application and viewing their profile. This task will evaluate both the complexity of our login mechanic as well as our navigation menu. If a user is able to quickly and efficiently login and view their profile, both these mechanics are implemented properly.
2. A user creating and posting a new post with an attached picture. This task will evaluate one of our main features, creating a post. If a user is

able to create a post and attach a picture without trouble then it is clear that our post mechanic is working properly.

3. A user navigating to the community tab and joining/applying to a community. If a user is able to complete this task, we once again can see that not only is our navigation menu easy and user-focused but also our community page is. If a user can quickly identify how to join/apply to a specific community then this benchmark is also a success.

What kind(s) of subjective questionnaires would you use to have a user critique the system?

A few subjective questions we might ask a user after interacting with our application would be:

1. On a scale of 1 to 10 how aesthetically pleasing is our application?
2. How would you describe your experience with creating a user profile?
3. How would you describe your experience with creating a post?
4. How would you describe your experience with joining/viewing profiles?
5. What did you like about the application? What didn't you like about it?

What kind(s) of interview questions would you use before a user tries your system? After?

Before:

1. What type of functionalities would you most expect from our application?
2. How do you expect to be able to interact with other users on the app?
3. How many communities do you think you would join?

After:

1. What outstanding edits would you like to see to improve user experience with creating/sharing posts?
2. How would you rate the home page in terms of ease of access on a scale of 1 to 10?
3. Would you recommend any aesthetic changes that would create a more UI?

What are other evaluation techniques? Why is it appropriate or not appropriate to use these?

1. We could use the think and share method. Survey a user of a minority group that has been using the application for 1 month vs. someone in the same group who hasn't used it at all and determine if the user feels more connected and active with their minority group inside of their community. This would be effective because it answers the basic question of whether our application is effective in

connecting people in minority groups which is the overall goal of the application.

2. We could also use the between-subject method and have three different users, each with a different role. One creates an account, another creates a post, and the last one interacts with the post through a different account. This would be effective because it would allow each user to focus specifically on one key function and allow them to zone in on how to improve their section only, rather than describe overall experiences, allowing us to get more specific feedback.