

Current Tasks:

1. Socializing with Friends, Both Online and Offline

Jack is an out-of-state freshman student enrolled in NYU. He doesn't currently devote a lot of time to reading political news, but he is now in an environment where he is surrounded by many people, including his roommate, who are very interested in politics. Because he is new to New York, Jack feels lonely and wants to quickly make new friends, and he believes that expanding his political knowledge will help him bond with his roommate. Jack wants a way to follow political news, particularly the news relevant to conversations he expects to have with his new friends. Jack wants an easy way to keep track of what news his friends care most about so that he can have meaningful discussions with them about these topics of interest.

2. Following the Development of News Stories

Zach is a 22-year-old college senior in the Computer Science department at his university. Zach is well-educated and understands the value of being informed about the world around him. Currently, his social media feeds provide him with some political information, but this information is dependent upon what his friends choose to share and discuss, and he wants to learn more. However, his schedule is hectic and he feels like he has to expend too much effort to keep up with the issues that matter to him; referencing multiple disparate news outlets is an annoyance. He wants all of the news that interests him consolidated in a single place.

3. Comparing Different Perspectives to Synthesize an Opinion

Karen is a graduate student at the University of Washington who occasionally follows the news. She reads about current political issues online, but mainly leans towards liberal perspectives. Karen wants a way to discover and read news stories which highlight opposing opinions, but she is frequently overwhelmed by the difficult task of parsing through the torrent of information available online. Because it is time consuming to find these counterbalancing viewpoints, she has difficulty forming an educated opinion on a given topic.

New Tasks:

1. Maintaining Privacy

Jill is a college student who comes from a very conservative family that looks unfavorably upon individuals who hold conflicting political opinions. Jill follows left-leaning news stories shared by her friends on social media outlets, including Facebook and Tumblr, but she is afraid that her relatives will confront her for sharing her opposing views. Nevertheless, she doesn't want to block or decline friend requests from her relatives on social media platforms like Facebook. However, she finds it tedious to keep track of her privacy settings when she wants to share political news with her friends and not with her family. She wants a simpler way to control the privacy of her actions in researching political topics.

2. Personalizing News Consumption

Devon is a very busy college sophomore who is very politically aware and active. He scours the Internet on a daily basis to research the issues that matter to him. While Devon is passionate about these issues, he still finds the process of parsing through all of this data on a daily basis to be cumbersome and inefficient. Devon's challenge is that he lacks a way to easily receive personally relevant news items in a single endpoint.

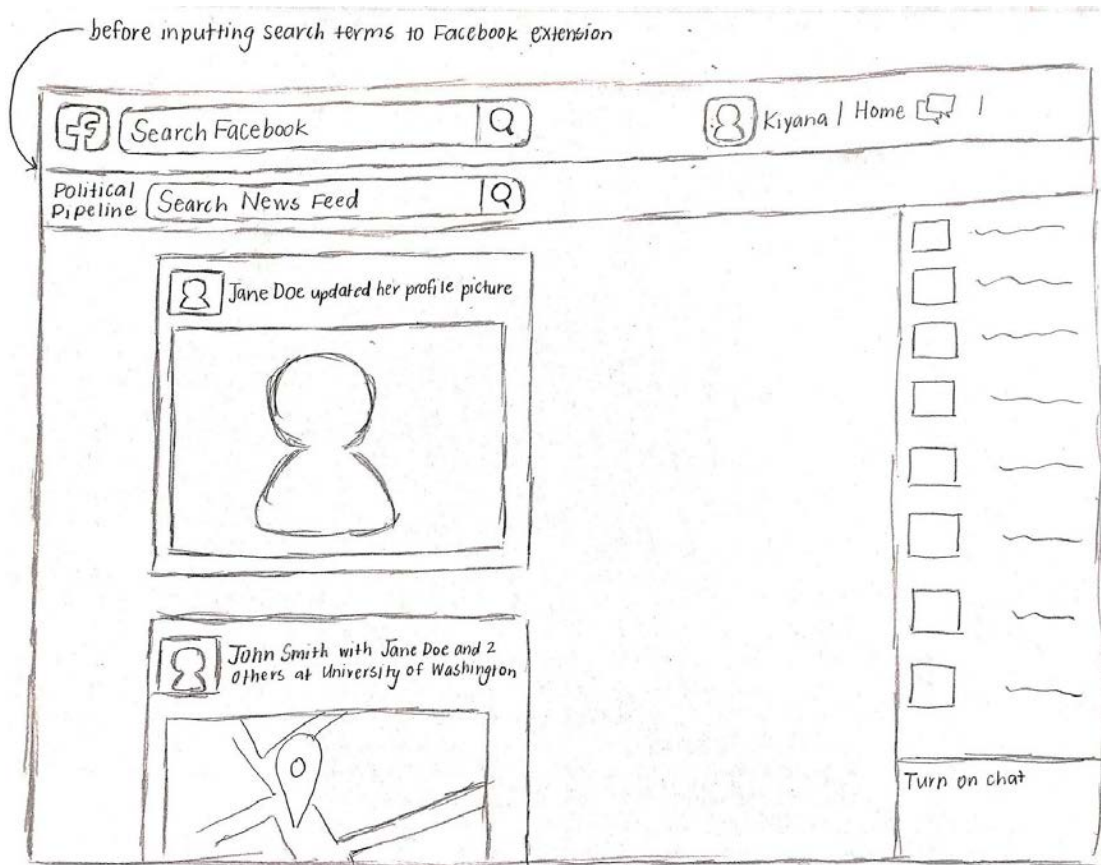
3. Gauging the General Opinion of a Group of People or a Region on a Particular Topic

Joe is a freshman from Michigan attending the University of Washington. He is interested in keeping up to date on political news. He regularly visits online news outlets to learn about current issues, as well as to form his own opinions on these topics. However, because he is not from the Pacific Northwest, he is not familiar with the overall political climate of the city of Seattle. It is difficult for him to learn about the widely held political opinions of the residents of Seattle because he does not know how to identify which news sources are providing reliable information specific to Seattle. Joe wants a method for quickly gauging what the general consensus of the surrounding population is on a particular political topic.

Design 1: Social Media Plugin

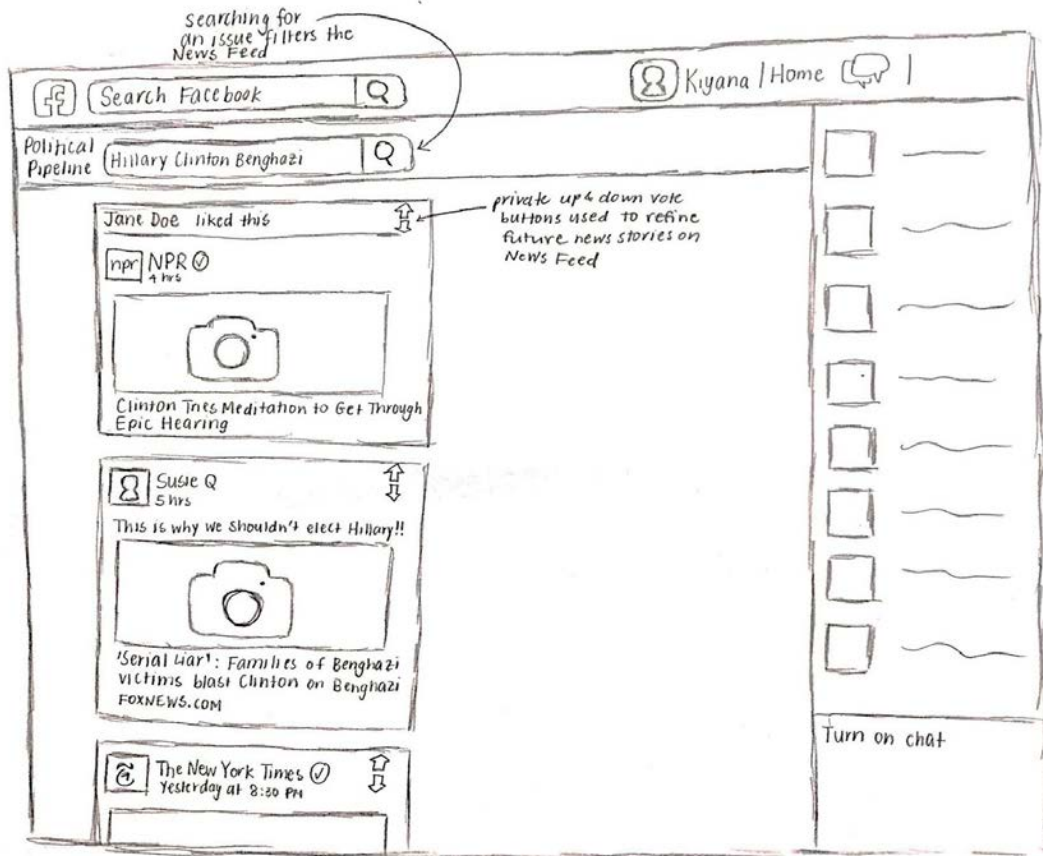
Because social media was popular amongst all of our participants, we feel as if there is no need to reinvent the wheel and create a stand-alone website or app. We propose a browser extension/add-on that lets you further customize your Facebook News Feed. A user could use this extension to filter their News Feed so that they could customize it beyond what Facebook currently allows ("Top Stories," "Most Recent," and Trending Topics). The extension would appear as a search bar beneath the currently existing "Search Facebook" search bar. This search bar would contain the text "Search News Feed," which would

indicate to the user that they can interact with this search bar in the same manner that they would with any other online search bar, but that they should expect the results to return items contained within their Facebook News Feed.



Our extension would allow users to filter their News Feed so that they only see information they deem relevant, like which of their friends were discussing the Hillary Clinton Benghazi Hearing, for example (this task would be accomplished by typing something to the effect of "Hillary Clinton Benghazi" into the extension's search bar). The extension could also be adaptive and learn over time; for example, if a user filtered their News Feed so they could see which of their friends were following the Hillary Clinton Benghazi Hearing, in the future, the extension would surface and highlight news stories or posts made by the user's friends related to Hillary Clinton, as well as new articles that detail developments in the Hillary Clinton Benghazi Hearing, without requiring the user to manually search for these stories. Additionally, there would be a feature for up-voting or down-voting a post, which is only viewable to the user. When the user upvotes a post, it prompts the system that the user would like to see more posts similar to it. A down-vote means that the user is not interested in seeing that type of post. This would allow for a user to further control the type of media they are seeing, and will feed into how the plug in aggregates relevant stories.

(see image below)



Tasks Addressed: Socializing with Friends, Following the Development of a News Story, Personalizing News Consumption, Gauging the General Opinion of a Group of People or a Region on a Particular Topic

Design 2: Smart House

In light of our observations, as well as the increasing prevalence of the Internet of Things in recent years, we propose the idea of using smart appliances throughout one's home as a means of providing the user with a non-invasive, hands free means of receiving personally relevant news stories (where "personally relevant" is defined as the aggregated subset of news topics that are important to the user, as determined by their set preferences and view histories). Users could receive news alerts through either a visual or auditory medium; for example, the news could be read to them, and relevant news clips could be sent to their computer or television. The data needed to provide this functionality would exist on a backend so that it could be translated to the user's car or other smart devices (that is, smartphone, tablets, etc.) as they leave the house. This design would make solving our chosen tasks easier by seamlessly integrating them into our users' daily routines:

Following the Development of News Stories:

The Smart House would configure to cache relevant political news stories while the user was sleeping and then would provide the user with a synopsis audibly (or visually via smart television) as a morning alarm. The system would also look for new stories on relevant topics to the user and alert the user either audibly (or visually, via a smart television interface) if they are in the house, or forward them to the user's car or mobile devices (smartphone or tablet, for example).

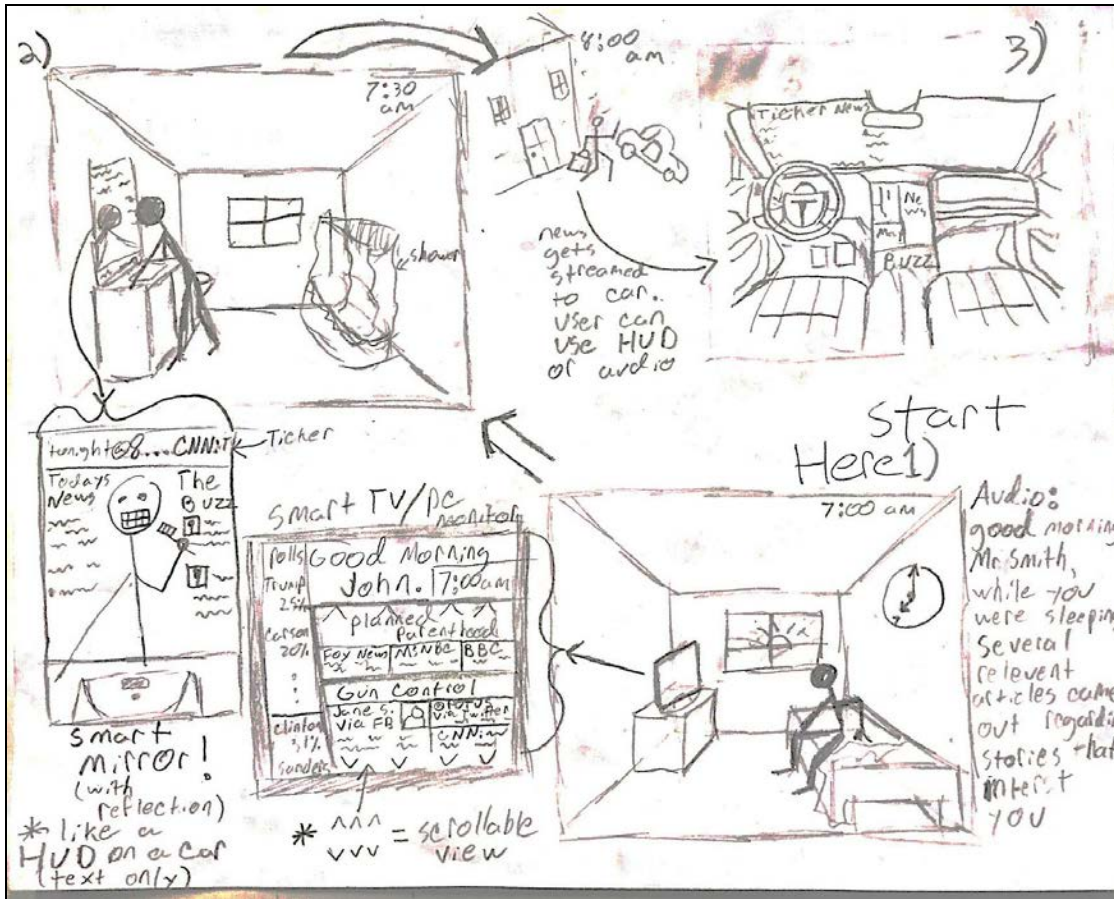
Personalizing News Consumption:

This system would employ the use of daily memos (see above) and smart devices (smart mirrors, smart TV's, etc.) to provide the user with a single, easily parsable interface that aggregates personally relevant news into a single location (for example, news stories would appear on the user's bathroom mirror as they get ready for work in the morning). The user should be

able to interact with the interface either via touch or voice commands. This feature would carry over to smart devices outside of the home, using whatever medium of interaction the device employs (touch screen, voice, keyboard mouse, etc).

Socializing With Friends:

Social media as a source of news was a consistent theme across all of our contextual inquiry participants. In light of this observation, not only will this system aggregate content from news outlets like CNN, NPR, Fox News, etc., but it will also pull content from posts made by a user's Facebook friends, Twitter users they follow, etc. New stories could then be filtered by topic, as well as by a specific individual (for example, a user may be interested in seeing news stories their significant other has posted).

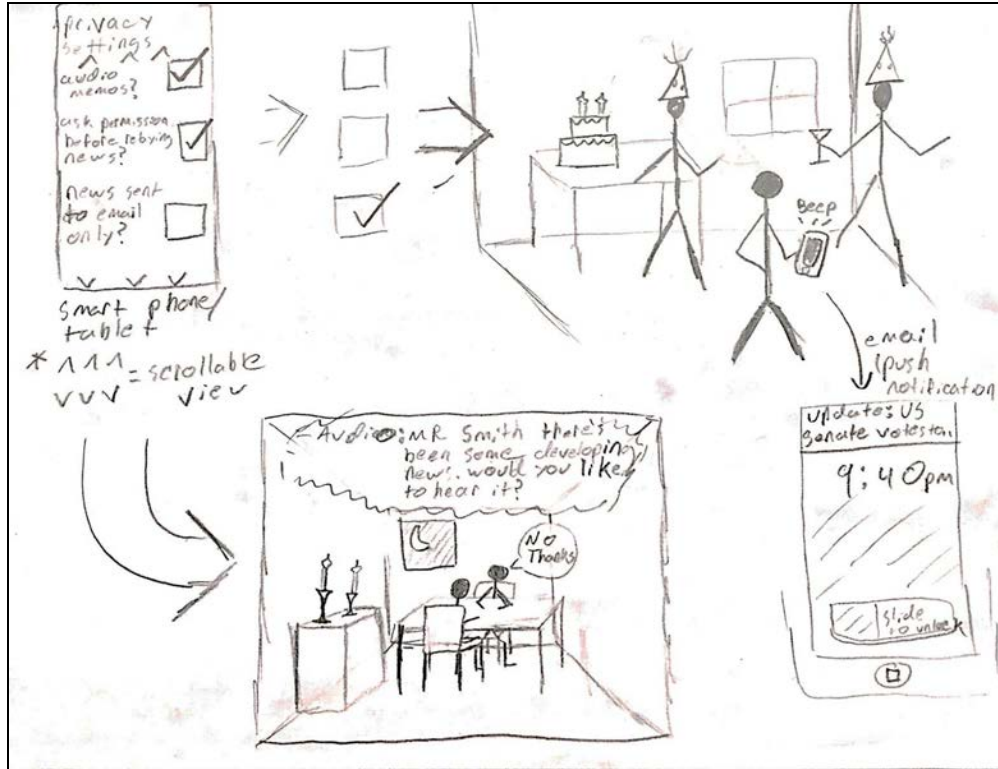


*Note: Diagram flow starts here!

Maintaining privacy:

Because this system is inextricably linked to an individual's personal, private residence, privacy is a major concern of the smart house. The user would have the ability to toggle when and where they received their news. If the privacy were set to "on," the system would always request permission before conveying news to the user, in case the user had company over for example. The user could also toggle the system's interactive capabilities to be limited to only his emails, phone notifications, etc if the user was concerned about the possibility of other individuals in the home gaining too much insight into his or her political preferences. The user could configure the smart house to relay their relevant news to the bathroom every morning (via smart mirror) so that they could read their news as they get ready for work, instead of immediately when they woke up, in the case the user shared a bed with someone else.

(see image below)



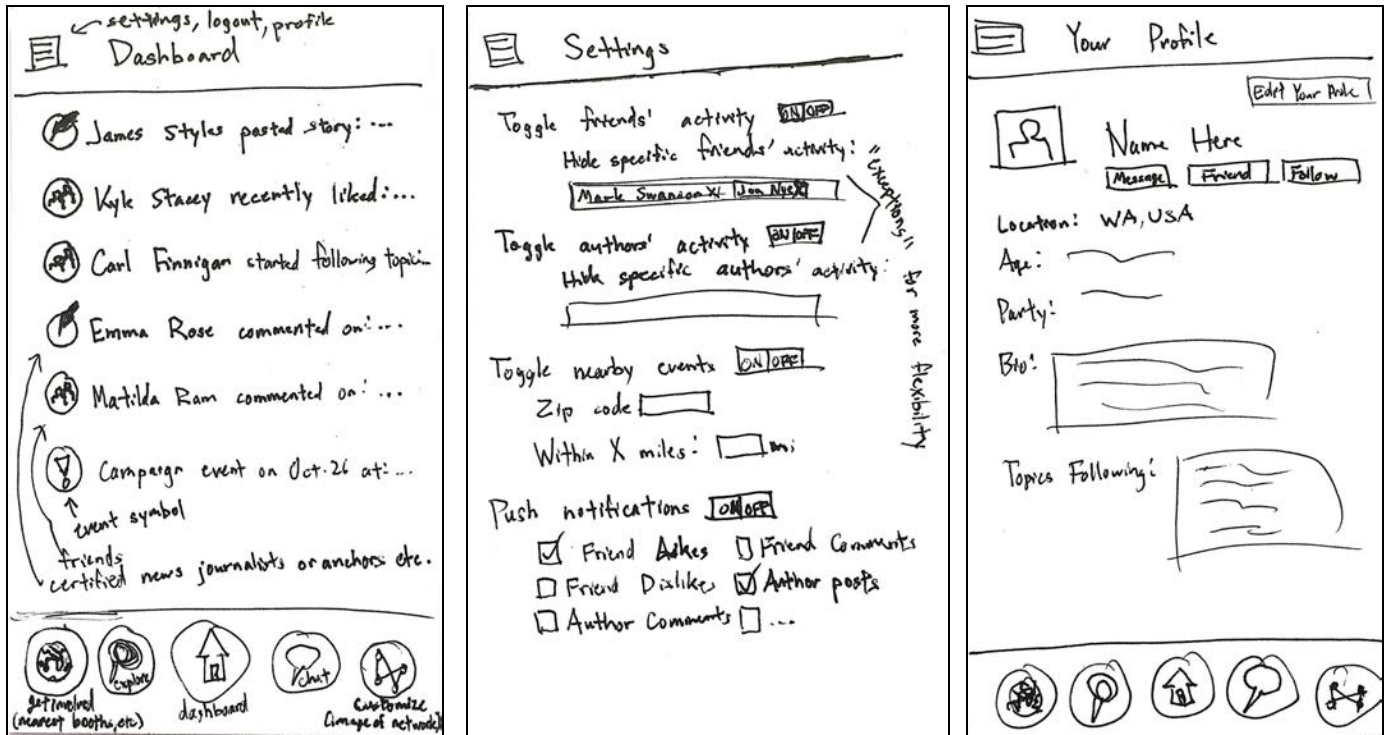
Design 3: Phone App

Through our contextual inquiries we learned that many people want to learn more about the news, but find it a bit overwhelming to sift through multiple news outlets. Our target audience would like an easy solution for receiving the news in one place, so we propose a standalone app that would encompass all of our tasks. We designed the app for a smartphone because our inquiries revealed that people generally read the news during downtime or times of passing (for example, as they walk to class, drive to work, etc.). A smartphone is something that most people in our target audience already own and have on hand most of the day. Additionally, many smartphone apps have users already signed in when they unlock their phone, unlike many sites on web browsers. Inquiry participants suggested that the fast access was something they preferred over a multi-step login process (e.g., logging into their computer and then onto a website).

Socializing With Friends, Both Online and Offline:

People indicated that they didn't care about reading about all political news topics, but only those that their friends were interested in, so that they could know the background behind the topics that came up in conversation. To address this, we integrated friends' activities (e.g., likes, dislikes, comments) to show up on a dashboard, as well as a separate search page that allows users to search user profiles in order to see the topics those friends follow. In the case that some people don't want to know the interests of all of their friends, a dashboard setting would exist to toggle viewing friends' activity as well as listing exceptions to the toggle (i.e., toggling you want to see all friends' activity except a certain list of people). There might also exist a chat function on the app for users to message friends and/or strangers online versus talking in person.

(see images below)



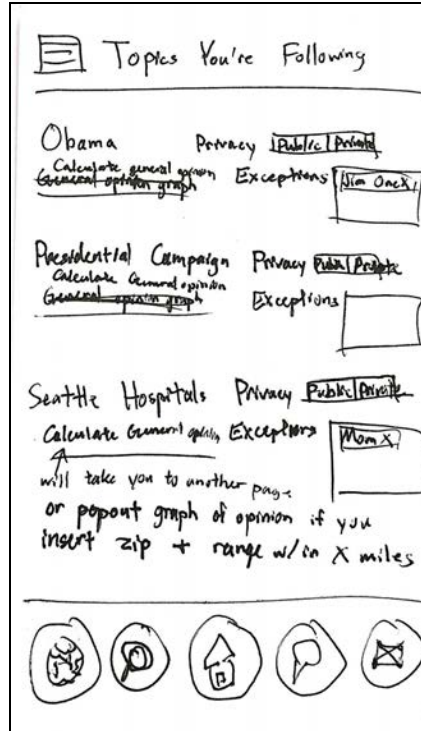
Following the Development of News Stories:

Through our inquiries we found that people generally stuck to one platform to access their political news since they didn't like switching back and forth between multiple, disparate news sources. We want to allow users to follow/subscribe to topics via tags so that they can see news about that topic from multiple sources all in their dash/news feed. Users could also unsubscribe from a particular topic at any time if they lose interest in said topic.

Maintaining Privacy:

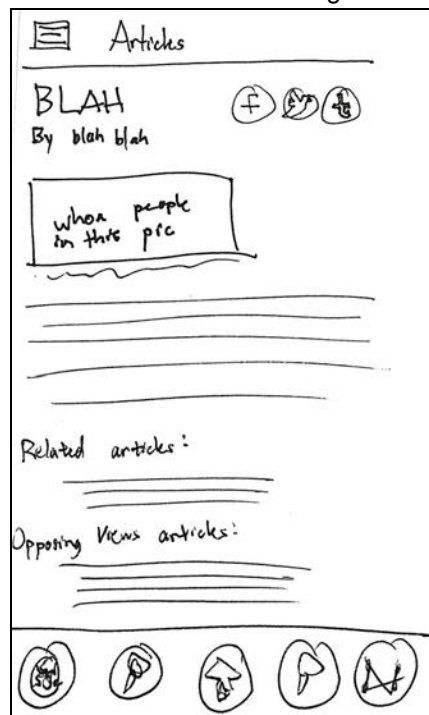
There was a desire for maintaining the privacy of what news sources or news topics people follow in case any of them were embarrassing or conflicted with the opinions held by their family or friends. We would give users the option of toggling topics they follow to public or private, and allow them the option to write in exceptions (i.e., people they don't want to see that they follow a specific topic if the toggle is set to public). The same design of toggling for privacy would apply to other things such as the things they like or dislike, and their profile sections.

(see image below)



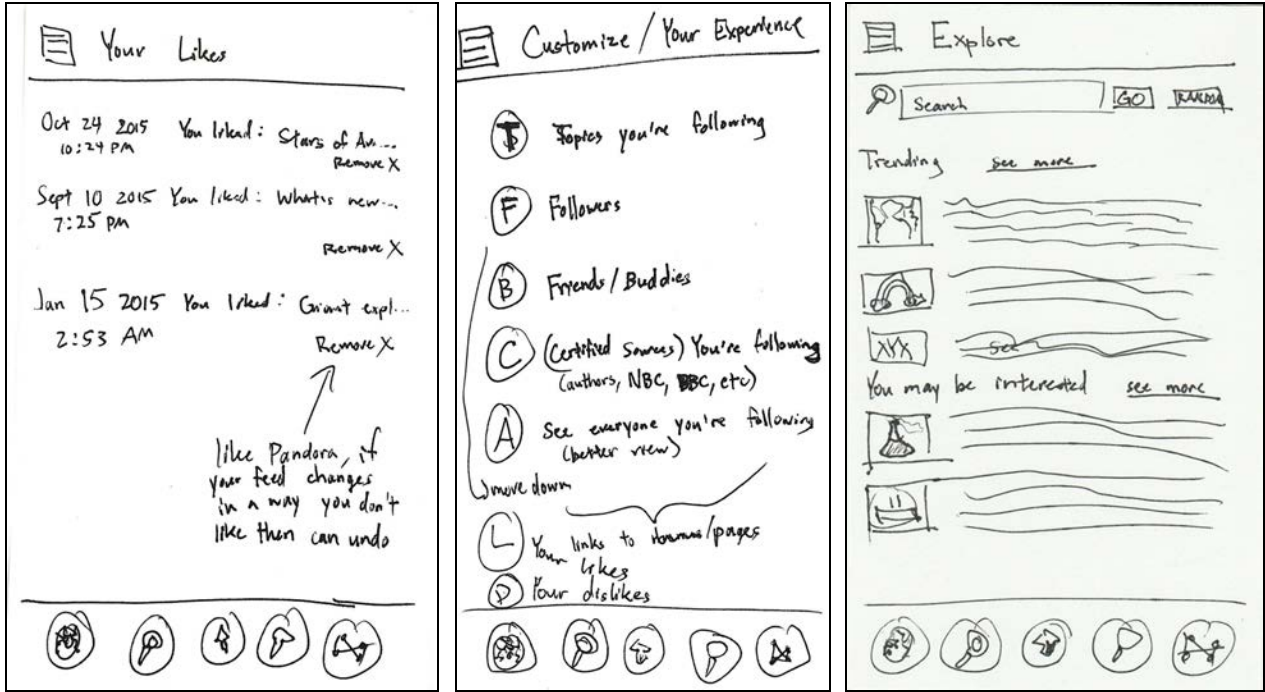
Comparing Different Perspectives On News Topics:

Our participants showed interest in reading opposing or differing viewpoints on the same subject in order to get a broader understanding of other people's opinions. We thought that at the end of each article, we would give users the option to either continue reading articles on the topic of similar opinions or to read different opinions on the topic if they wanted; for example, a user reading an article written by a left-leaning news outlet, like NPR, could be given the option to read about the same topic on a right-leaning news outlet, like Fox News, or an article from another left wing media source, like The New York Times.



Personalizing News Consumption:

To tailor news to the user's interest, users can choose what topic tags or people to follow via a search/explore page. They will also get suggestions of articles they may be interested in on the explore page based on their history of likes and dislikes, in the way Pandora tailors music. Users could go to their likes and dislikes pages and remove/undo any activity if they find their news has been tailored in a way that doesn't fit their interests.



Gauging the General Opinion of a Group of People or a Region On a Topic:

There is a tension between maintaining personal privacy but wanting to know what other people's opinions are. In order to remedy this tension, we have a button (the "Earth" button) that leads to a worldview page where users can not only see where nearby political events are taking place, but can also enter a zip code and a range (within x miles of the zip code) to see a graph or map of the opinions of people in that region in general on the basis of the topic searched.