



Team

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Problem and Solution Overview

Homelessness is a huge problem in the United States, as well as around the world. It is estimated that over 50% of homeless people are unemployed, causing them to fall into a cycle of chronic homelessness. The negative stigma surrounding homeless people, both external as well as internal, can cause homeless people to become unmotivated, desperate, and hopeless. Although a striking majority of homeless people want to get back on their feet and become employed, the negative stigma destroys their confidence and aspirations, and without confidence, the other hurdles that homeless people face while trying to become employed are impossible to overcome. Due to the lack of a proper support system to keep encouraging them, homeless people struggle to find a way to stay confident while trying to get themselves out of their situation. Our challenge is to create a design solution that instills confidence in homeless people trying to get out of a particular situation and find employment. Our solution involves touch screen monitor in a public library, an important location and resource for homeless people, with SMS text messaging capabilities. Our design aims to help with homeless people's lack of confidence by allowing them to read success stories of other employed and previously homeless people, letting them know that there are people with similar backgrounds that have succeeded in getting back on their feet; our design allows these users to save the story for later reading by sending the story to their phone via SMS or to their email. Our design also allows for homeless people struggling to gain confidence while looking for jobs to become connected with mentors that have gone through similar experiences by receiving contact information of mentors willing to help.

Initial Paper Prototype

Overview of Paper Prototype

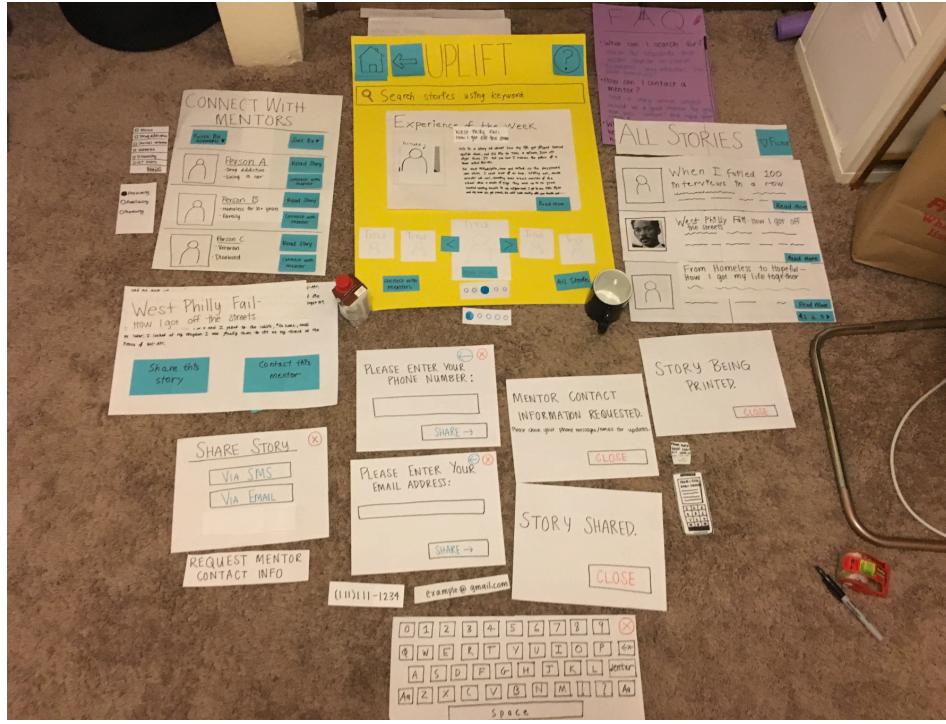
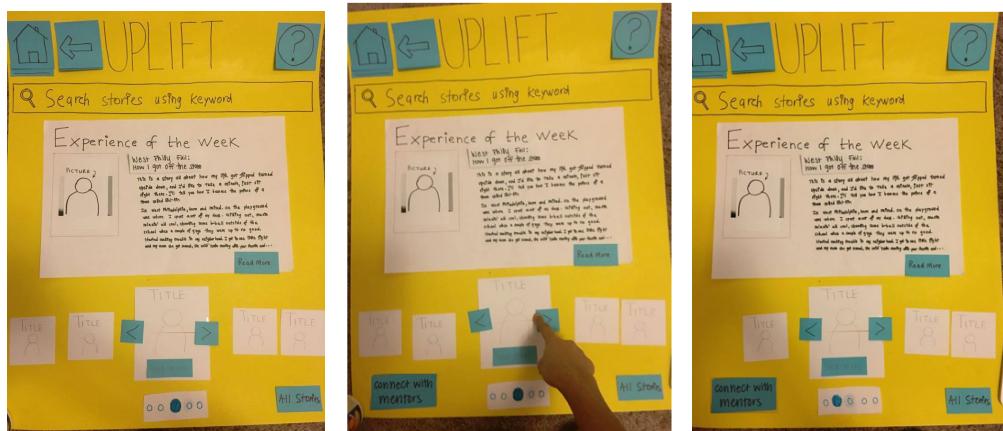


Figure 1: Initial Prototype overview

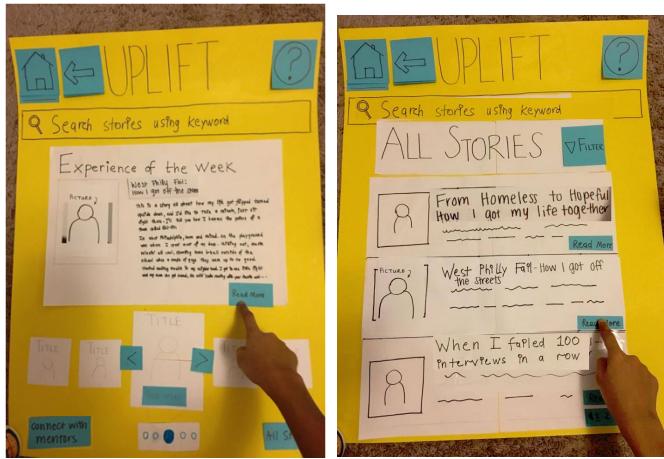
Our initial paper prototype was based off a bulletin-board-sized touchscreen. Our initial design had four main screens: the home screen, the all stories screen, the all mentors screen, and the FAQ screen. Each screen had additional popups that could show up after certain buttons were pressed.

Task 1: Reading success stories of other employed homeless people



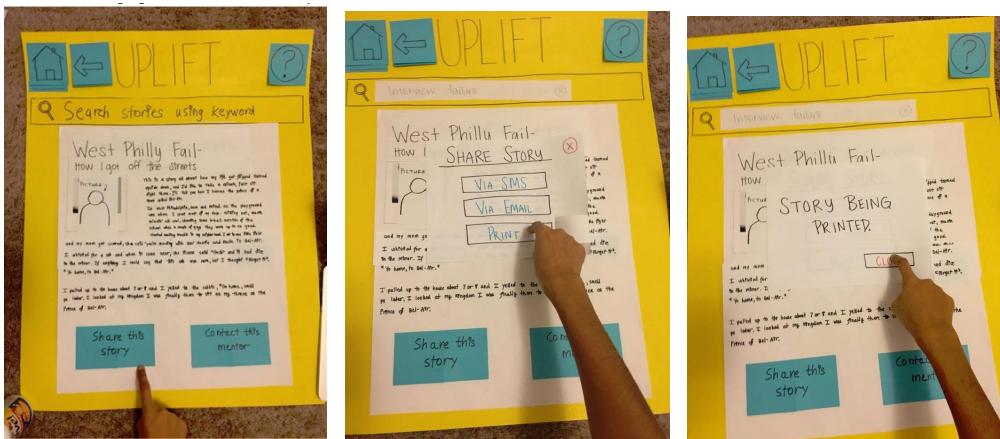
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For the first task, the user can browse the featured stories at the bottom half of the main screen using the arrows near the center featured story icon. They can potentially click on “read more” on any of the featured stories to get to the corresponding story page.



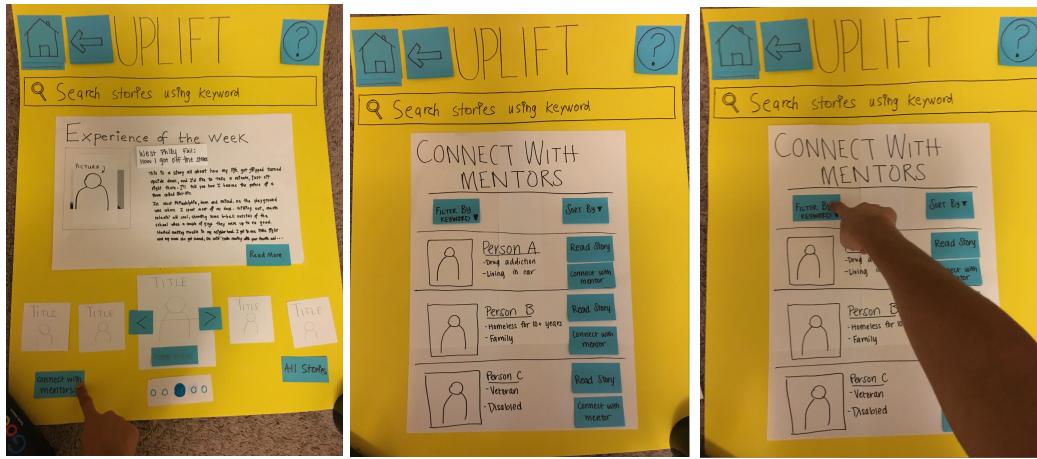
The user can also read the “Experience of the week” directly by clicking on “read more” on the home page, or can click on “All Stories” on the bottom right of the home page to read the titles & synopses of all stories stored in the database. From the “All stories” page, the user can click on “Read more” on any of the sample titles to get to the corresponding story pages.

When on the story page, the user accomplishes task #1.

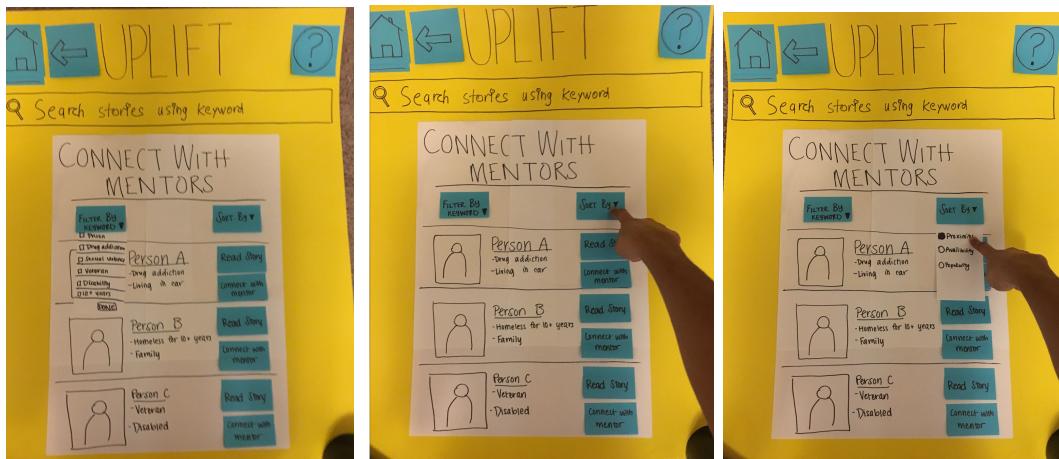


The user can also choose to read the story later by clicking on “Share this story” and then choosing the method to send the story to themselves.

Task 2: Become connected with mentors with similar experiences of unemployment and homelessness

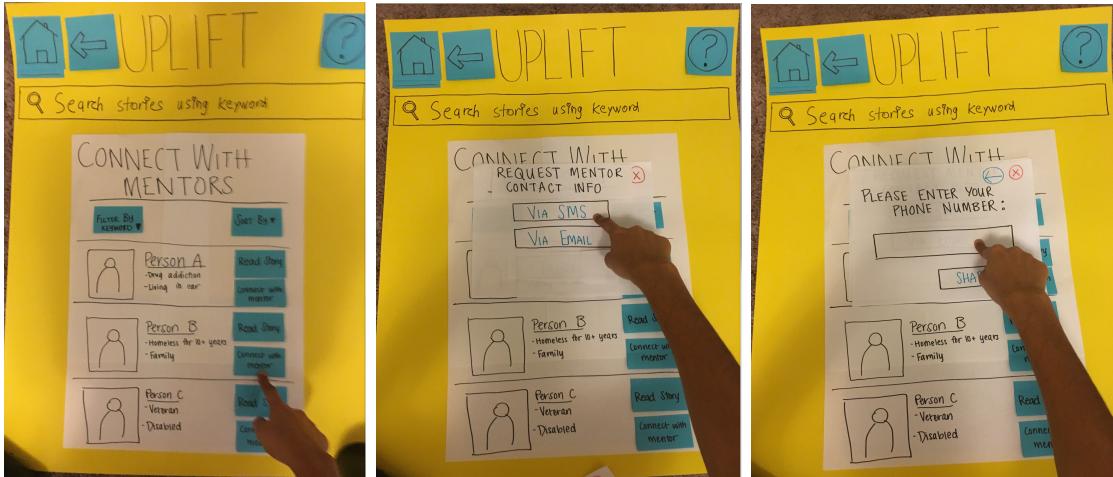


The user can request mentor contact information either from a specific story page, or from the page of all mentors. The all mentors page can be accessed by clicking on “Connect with mentors” on the home page. On our initial design, this button was on the bottom left corner of the home page.

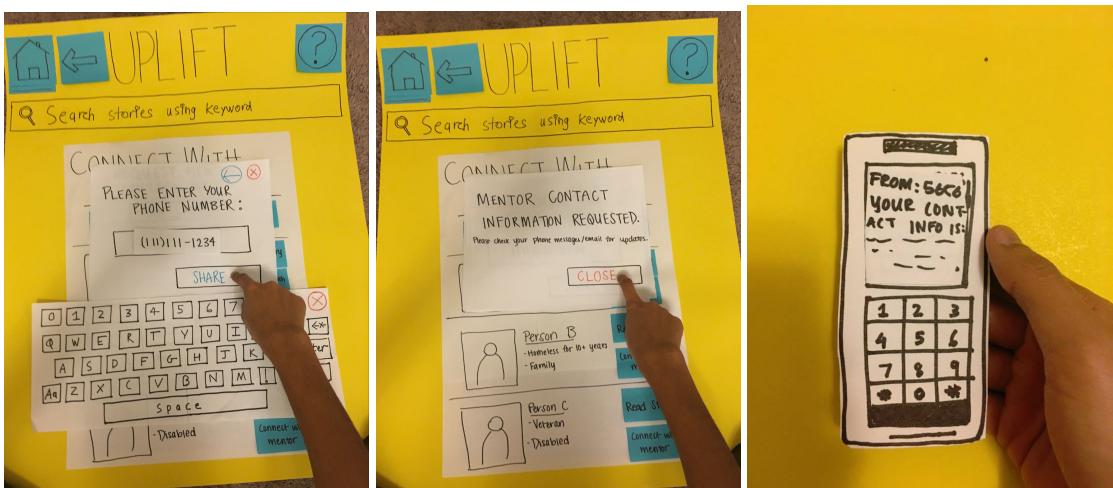


The user can choose to filter mentors by preselected keyword, or sort by a certain condition.

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The user can choose to contact mentors directly by reading the short description about their background and subsequently clicking “Connect with mentor”. They can choose either SMS or email to get mentor contact information.



A keyboard appears, allowing the user to enter their phone number (or email if they choose that method). After entering the phone number, the contact information is sent to their phone via SMS.

Testing Process

Heuristic Evaluations

Before our usability tests, we conducted heuristic evaluations with different pairs of partners in class. We ran two heuristic evaluations per task, for a total of four evaluations. We incorporated the feedback received in class to change our paper prototype before conducting usability tests.

Testing Method Overview

We conducted our usability tests in the Bellevue Public Library, since the environment matched the type of place our design would be set up. Initially, we asked participants some prescreening questions, to determine whether or not they would be useful test participants. We encouraged our participants to think out loud and tell us when they were confused, happy, etc. All participants were asked to complete the same four tasks: send story of the week to themselves via SMS; filter all stories by searching for “interview fail”, then pick one to print; find all mentors sorted by availability, then request contact information of first one via email; find all mentors that have gone through drug addiction, then read first story, then go back and read second story, then request via SMS. We intentionally left our tasks a bit ambiguous, in order to reveal design flaws.

Participants

➤ Our first usability test involved a homeless woman in her mid-40s. The participant was a regular frequenter of the library, telling us that she visits the library almost every day to surf the internet and to print papers. Our participant was not familiar with usability testing, but was willing to help out. The roles of our group were as follows: Ning was the facilitator and note-taker, and Siddharth was the computer.

➤ Our second usability test involved a librarian/library employee in his 30s. This man worked full-time at the library, and interacted with homeless people very often. He was eager to help test our design out. The roles of our group for this test were Ning as the facilitator, Siddharth as the computer, and Shilpa as the note-taker.

➤ Our third usability test involved a homeless man in his mid-50s, who had been homeless for a few years. He was not actively looking for employment, having given up on that endeavor a couple years into being homeless. However, he was enthusiastic about our idea and suggested that he might enjoy using our design. The roles of our group for this test were: Justin as the facilitator, Siddharth as the note-taker, and Ning as the computer.

Retrospective Review

Our usability testing methods did not change much throughout the course of our testing process. However, we did implement minor changes. After our first usability test, we realized that having two members of our team present was not sufficient for ideal note-taking & efficiency. We proceeded to have more members of our team present for the rest of the tests. In addition, we realized that we were not letting the users testing our design to fully freely speak what was on their mind, but were jumping too quickly to the next question and almost cutting them off. For the second and third test, we made sure to give ample time between screen switches, etc, to figure out exactly what the participants were thinking.

Testing Results

Heuristic Evaluations

We found some design flaws during our heuristic evaluations, that showed gaps in our thought process through mostly minor errors. For the most part, our heuristic evaluation results centered around lack of clarity rather than user-generated or system-generated errors. One main error that was found by both pairs of participants was that the idea of “Share story” was not clear and did not match real-world expectations of what that function entailed. The purpose was supposed to be to read the story for later, not to share on Facebook or Twitter. For that reason, we renamed those dialogues to “Send Story to yourself or to others”. Other errors that we fixed included fixing visibility of certain pages by updating the headers to match the system status (changing “all stories” to “Search results” when the user had just searched, etc).

Usability Test 1

Our first usability test showed us that the user was not given much context when using our design. The main heuristic that was violated was “Help and documentation”, although there were other errors as well. The user was, first of all, very confused when looking at the home screen. We realized that there was no way for the user to tell that the design was meant for homeless people and was designed to center around building confidence of homeless people looking for employment. We fixed this by adding a welcome screen that acts as a screensaver so that users can get some context. We also added a small description under the “Contact mentor” button to describe its function, and added a description under the “Please enter your phone number” to reassure the user that the phone number will not be saved. Finally, we got rid of the “print” option from the send story page, after receiving feedback that the print function for reading stories later did not make much sense.

Usability Test 2

Our second usability test gave us a lot of feedback to work with. We realized that, although we had given context to the user after changing our prototype based off of feedback from the first usability test, we did not account for all the confusions that a potential user might have. We modified the initial welcome screen to have more comforting and welcoming words, to motivate homeless users to actually use our design. We added various popups to go along with our user flow; we added a small popup that could appear after the user clicks on a question mark button near “Send story” that specifies what is happening, as well as another popup that appears when a user tries to connect with a mentor specifying that it is the contact information of the mentor that will be sent to them. Finally, we added tags underneath each story to allow the homeless user to understand the context of each story without having to read the synopsis (our participant told us that he might have trouble if he had to read through multiple synopses just to figure out which story to read).

Usability Test 3

Our final user gave us feedback that centered around functionality of our design. They were able to understand the purpose of our design what two tasks were supported, but were confused about why our design seemed to support the task of reading stories more than the task of getting connected with mentors. For that reason, we updated our design to include more functionality for our task of getting connected with mentors with similar experiences of unemployment and homelessness. We added a search bar that can search for both mentors and stories by keyword; this search bar also automatically updates depending on which page the user is (but can be reset). Another change that was made was the addition of dates on our stories.

Design Critique

From our design critique, we realized that more things had to be done to our design to make it more apparent for homeless people. We added phrases such as “For homeless, from homeless”, as well as extra descriptions in the FAQ page, to address this issue.

Note: For a detailed list of changes, please refer to the Appendix.

Final Paper Prototype

Overview of Paper Prototype

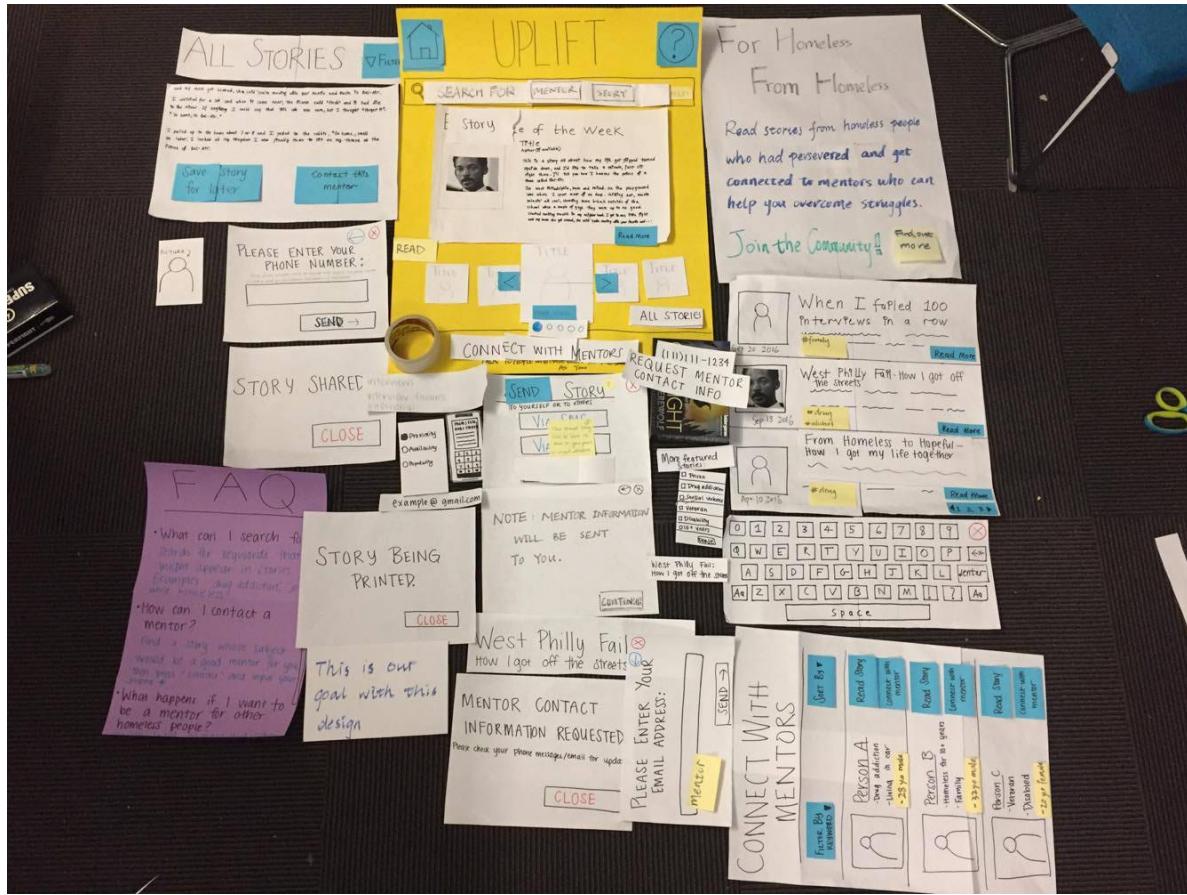
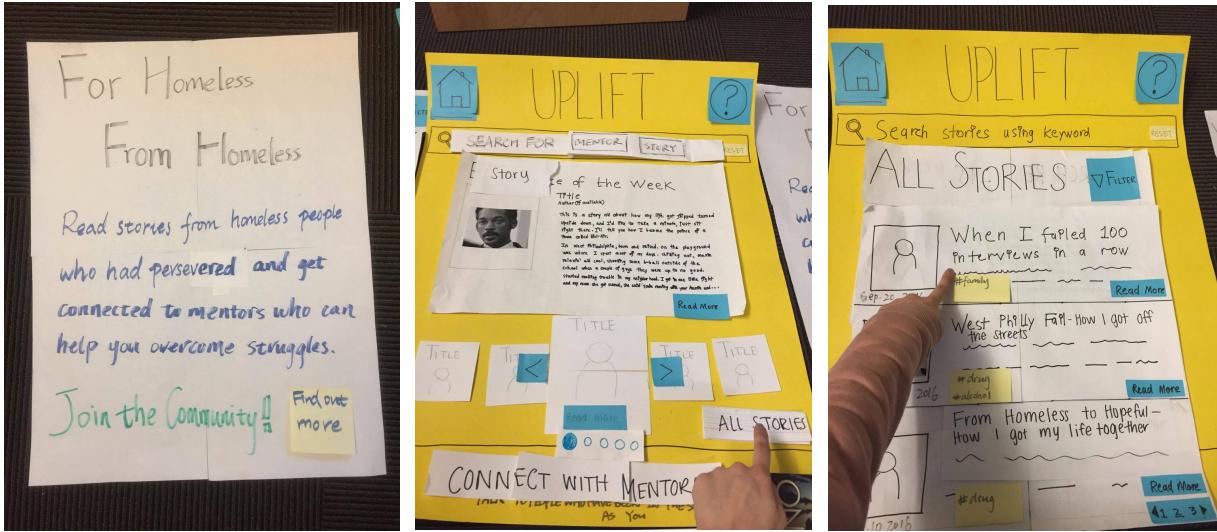


Figure 2: Final Paper Prototype Overview

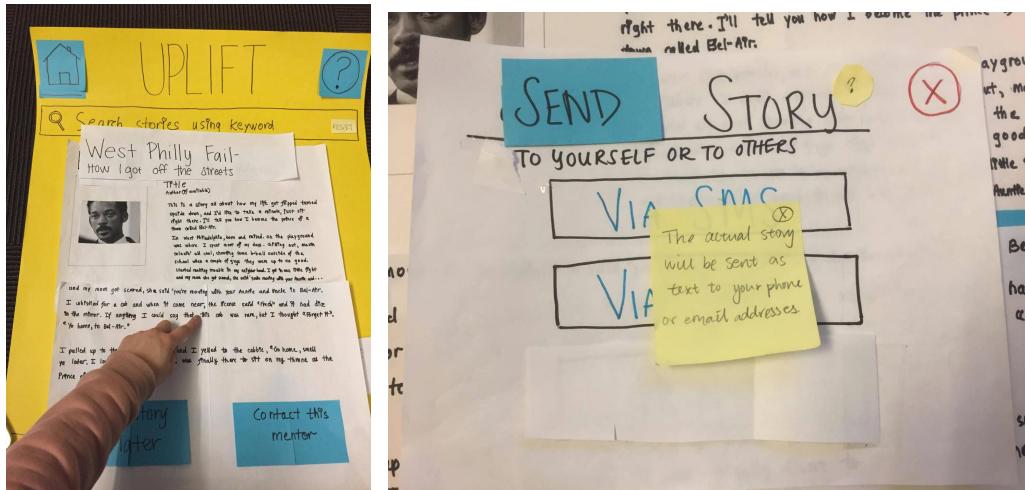
Our final paper prototype was based off a bulletin-board-sized touchscreen. Our final design featured main screens consisting of the Intro/welcome screen, the home screen, the all mentors/mentor search results screen, and the all stories/story search results screen, as well as the FAQ screen. These screens all have popups that appear depending on what task the user wants to accomplish, but a thing that is different from our initial prototype is that these screens have more informative wording and have more places for the user to ask for help & understand what the purpose of the design is.

Task 1: Reading success stories of other employed homeless people

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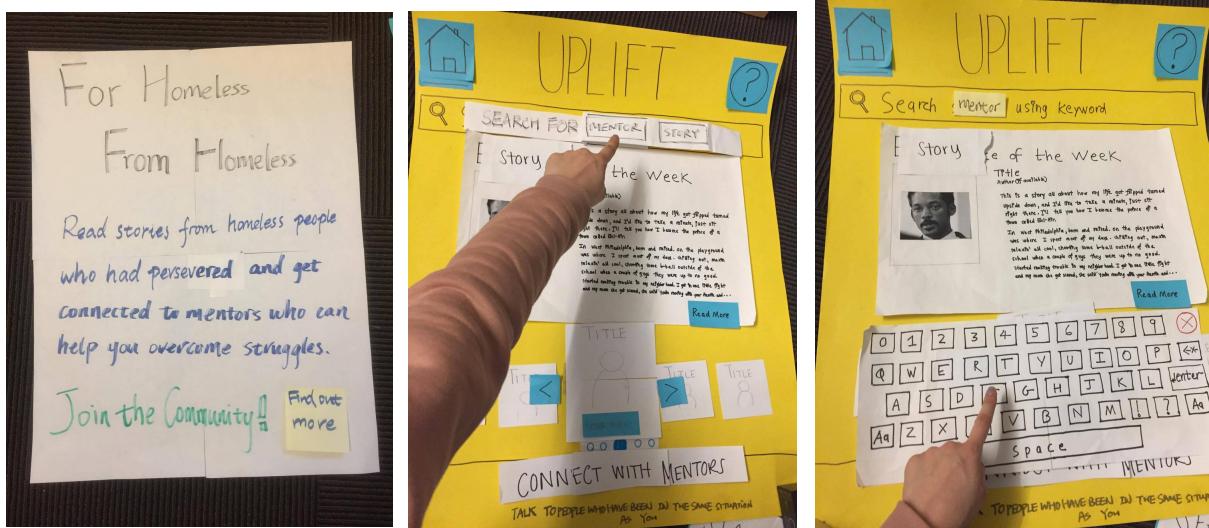


For the first task, the user can first click on “Find out more” in the intro/welcome screen to navigate to the home screen after reading the few words about the design & what tasks the design is allowing the user to accomplish. They can click on “All stories” at the bottom of the home screen to navigate to the list of all stories, and can tap on a story header to view the full story.

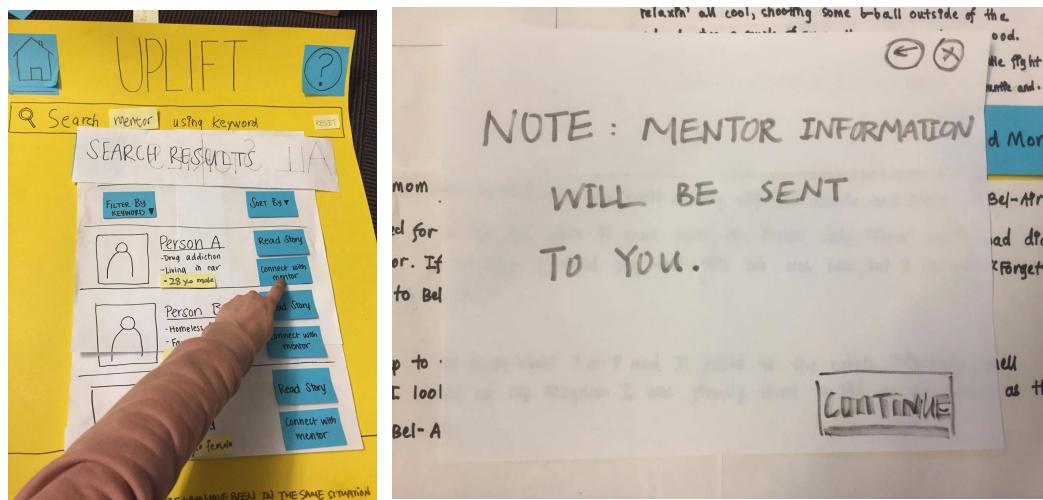


After viewing and reading the full story, the person accomplishes task #1. If the user wishes to, they can save the story for later, or contact the mentor from the story page. They can click on the question mark button near “send story” to learn more about what exactly it means to send a story. Then they can choose a method to send the story (SMS or email), and get the story sent to them via the method they pick.

Task 2: Become connected with mentors with similar experiences of unemployment and homelessness

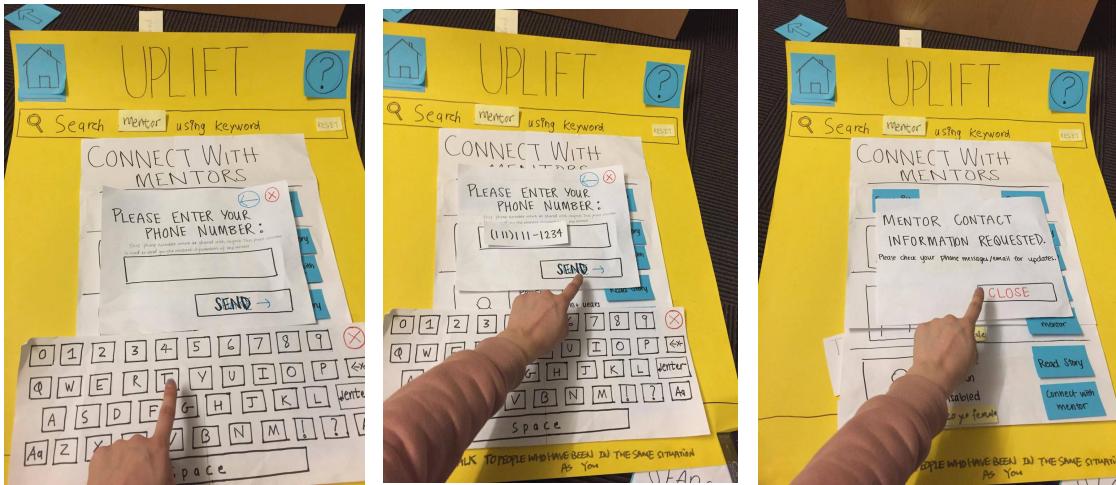


For the second task, the design starts out with the same welcome screen. The user can click on “Find out more” to move to the home page. They can click on “Connect with mentor” to view a list of all mentors, or can search for specific mentors by clicking on “Mentor” on the search bar. The search bar is updated to say “Search mentor using keyword”. A keyboard appears, allowing the user to search for some specific keyword pertaining to mentors.



After viewing the search results for mentors, including tags about background as well as additional information such as age, the user can choose to read the mentor’s full story (task 1), or connect with them without reading the story. After clicking on “Connect with mentor”, the user is informed that the mentor information will be sent to them.

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After clicking on continue, the user can enter their phone number so that the mentor information is sent via SMS. A keyboard appears, allowing the user to enter their phone number. The dialogue also assures the user that the phone number will not be stored and will only be used to send the mentor contact information to the phone. Finally, a popup informs the user that the mentor contact information has been requested, and that the user can check their phone for updates.

Digital Mockup

Changes between paper prototype and digital mockup

When we completed our final prototype and started making the digital mockups, we were still looking to make improvements to our interface based on feedback we received. First, we changed the functionality of the search bar to include buttons for stories and mentors. Selecting one will search for only stories or mentors, depending on which the user chooses. We believe this will provide more clarity to the users on how the search function works.

We also omitted the “read” notification on stories the user has already seen. We realized that this may create a sense of confusion amongst our users, since our application does not have a personalized login process for any user. This means that if the display is used consecutively by two different users, the second user will see “read” icons on stories that she has not actually read.

We omitted a couple more features, including the arrows on featured stories on the home page (which seemed to cause confusion), and the description under the “contact a mentor” button on the home page (which made the screen more cluttered). Finally, we got rid of the email option for connecting with a mentor, to simplify the design, and made it so that contact information can only be sent via SMS (which the users we tested with seemed to prefer).

We also made minor changes to the buttons and interactions to ensure consistency within the UI based on heuristic evaluation. This includes getting rid of arrows to scroll through the five featured stories on the home page (this looked way too cluttered, and we decided to make it three featured stories you can scroll through instead). We added question mark buttons to both “Send this story” and “Contact a mentor” to clarify on what the functionality was, removing the text that we added below the headers for aesthetics.

We also discussed the visual design for our digital mockup and final product. We selected the color “Purple” as a primary color for the visual, as it stands for the color of royalty. We understand that our target users face a lot of social stigma, and we plan to motivate them by creating a sense of community and togetherness.

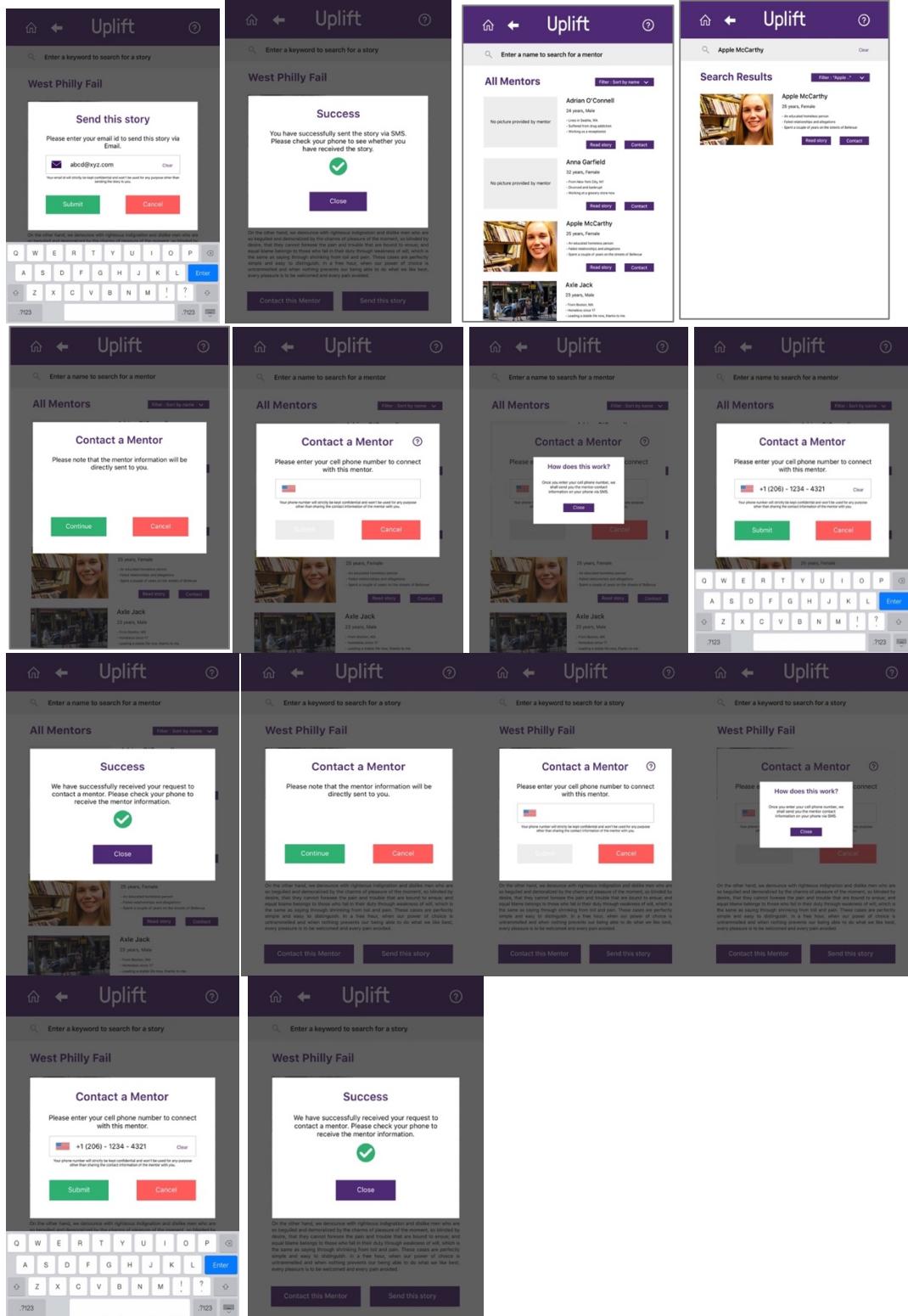
For typography, we decided to work with San Francisco UI Text, since it was developed by Apple and is highly effective in both large and small font sizes. We took into consideration that our users may consist of people of all age groups from 20 years to 65 years, and used a font that is readable to everyone.

Overview of Digital Mockup

The digital mockup consists of a 4x3 grid of screenshots from the Uplift mobile application. Each screenshot displays a different screen of the app's user interface.

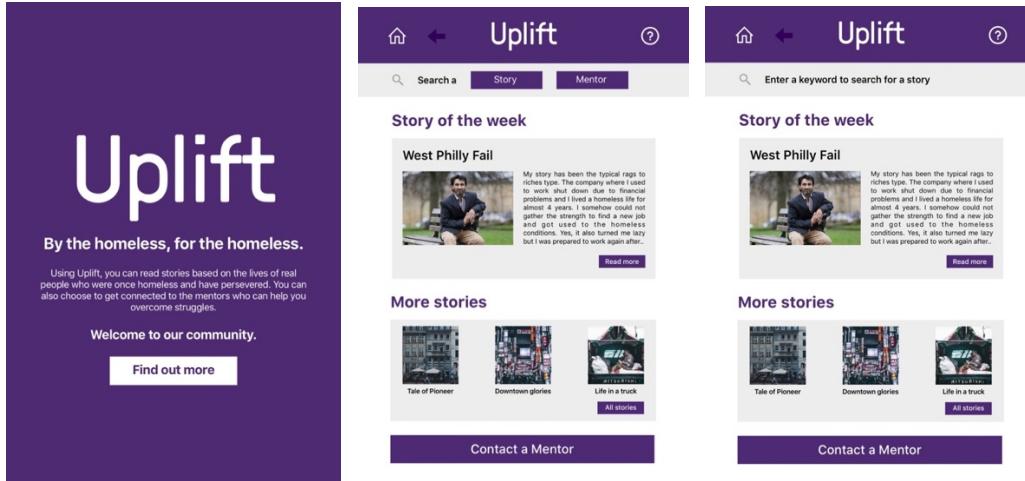
- Row 1:**
 - Home screen: "Uplift" logo, "By the homeless, for the homeless." Welcome message, "Find out more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a thumbnail, a short summary, and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
- Row 2:**
 - Mentor search screen: "Enter a name to search for a mentor". Includes a "Story" and "Mentor" filter dropdown.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a thumbnail, a short summary, and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
- Row 3:**
 - Mentor search screen: "Enter a name to search for a mentor". Includes a "Story" and "Mentor" filter dropdown.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a thumbnail, a short summary, and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
- Row 4:**
 - Search results screen: "Search Results" for "Interview". Shows multiple story cards with thumbnails and titles.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a thumbnail, a short summary, and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
- Row 5:**
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
- Row 6:**
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.
 - Story detail screen: "Story of the week" for "West Philly Fail". Includes a keyboard input field, suggested keywords ("Interview", "Interests", "International"), and a "Read more" button.

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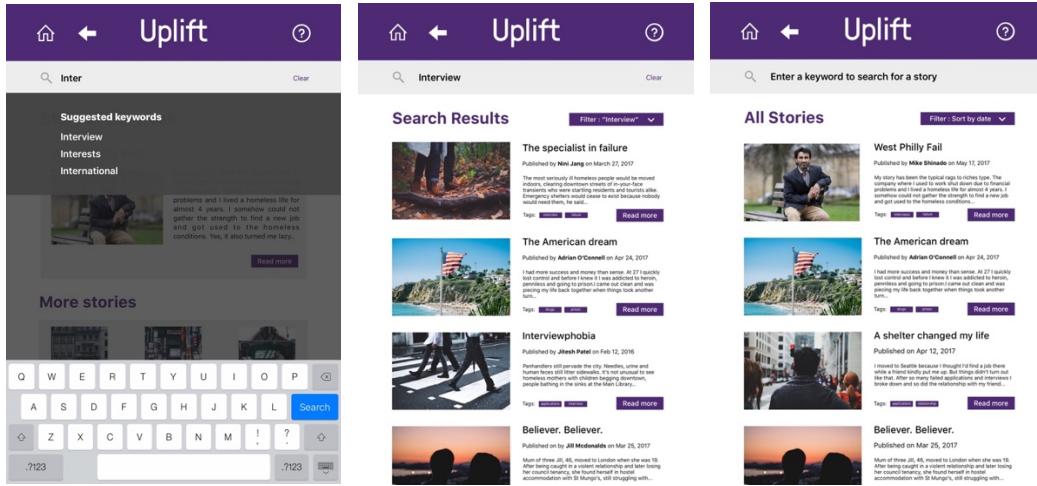


Task 1: Reading success stories of other employed homeless people

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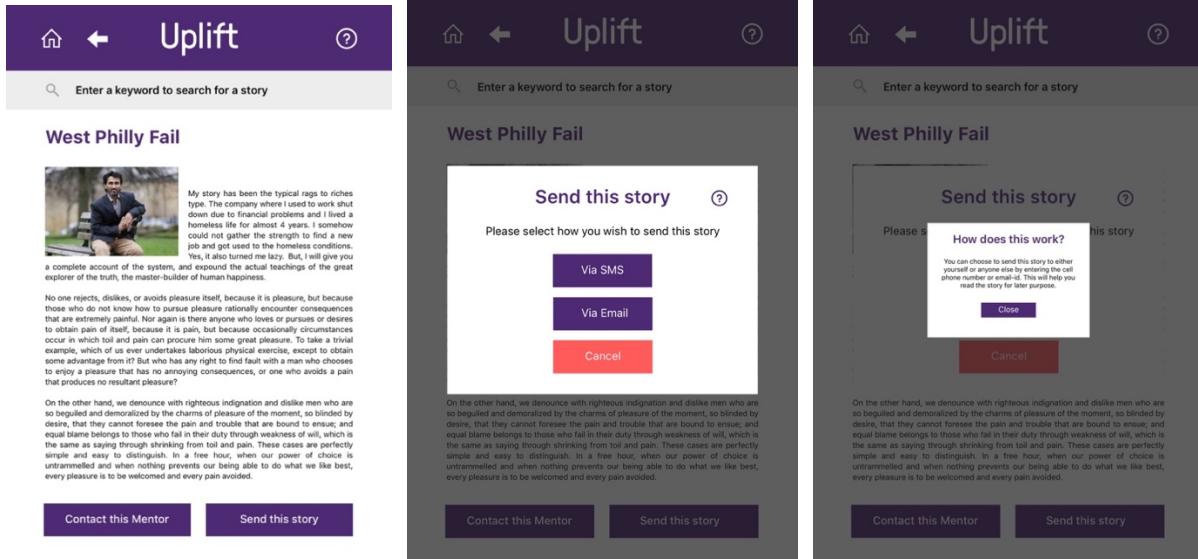
The intro screen has inviting dialogue that allows the user to become interested in what the design has to offer. The user can move to the home screen by clicking on “Find out more”. This screen appears after the screen is inactive for a certain period of time. Once on the home screen, the user can choose to view the story of the week, view all stories, or search for a story by clicking on “Story” in the generalized search bar (at which point the search bar updates to become a story-specific search bar).



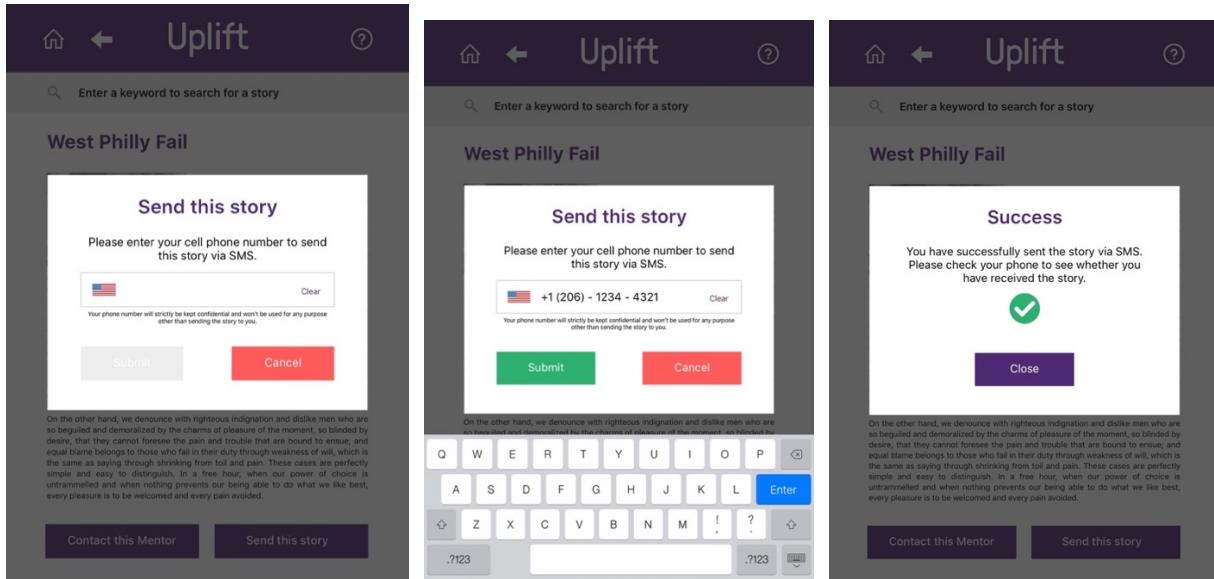
The user can search for stories based on keywords, and after searching with the popup keyboard, stories are listed based on the search term. Alternatively, to view all stories, the user could have clicked on “All stories” on the home page to get to the screen on the far right.

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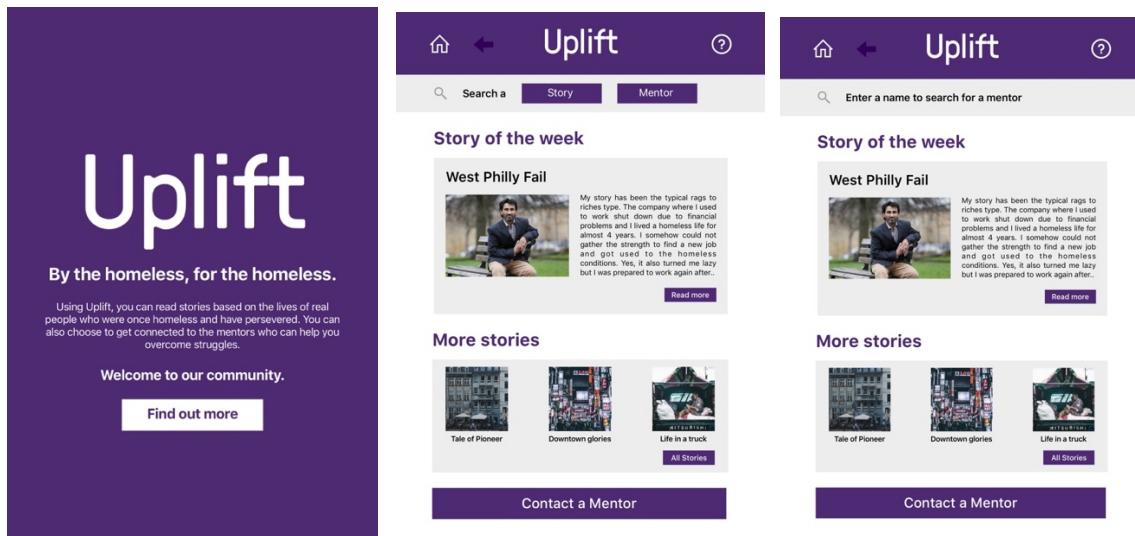


The user can view a story by tapping on it in the list of search results or all stories, after reading the synopsis or tags. By reading the full story, the user accomplishes task #1. If the user wishes to send the story to read later, they can do so by clicking on “Send this story”. They can choose SMS or email as the method to send the story, and can click on the question mark button to get more information about the process of sending the story for reading later.

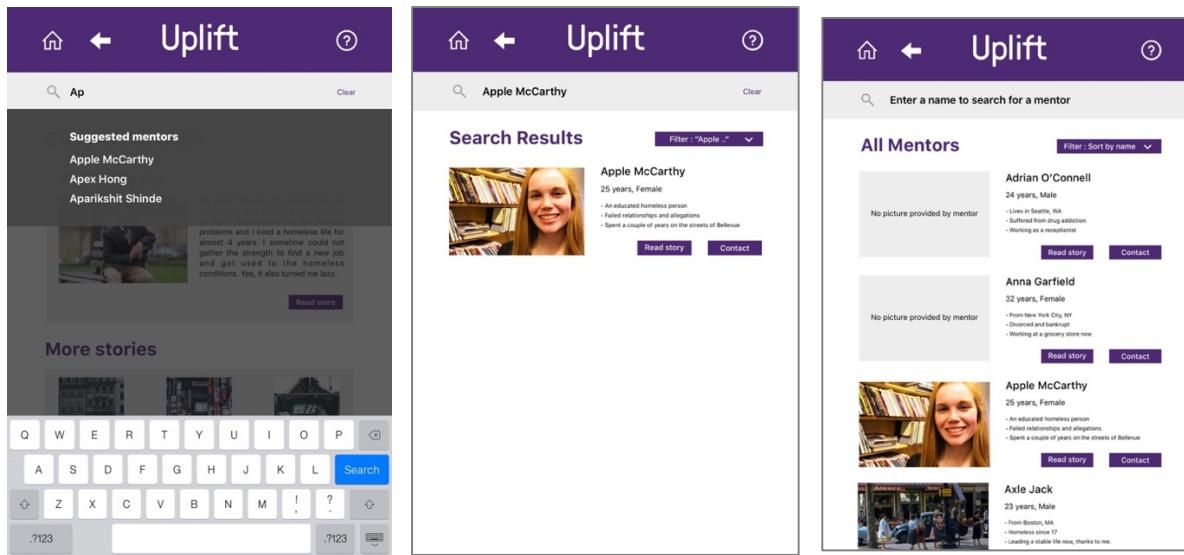


The user can send the story via SMS by entering their phone number. The dialogue assures the user that the phone number will not be saved or used maliciously. Similar popups appear for email method (check digital mockup overview).

Task 2: Become connected with mentors with similar experiences of unemployment and homelessness



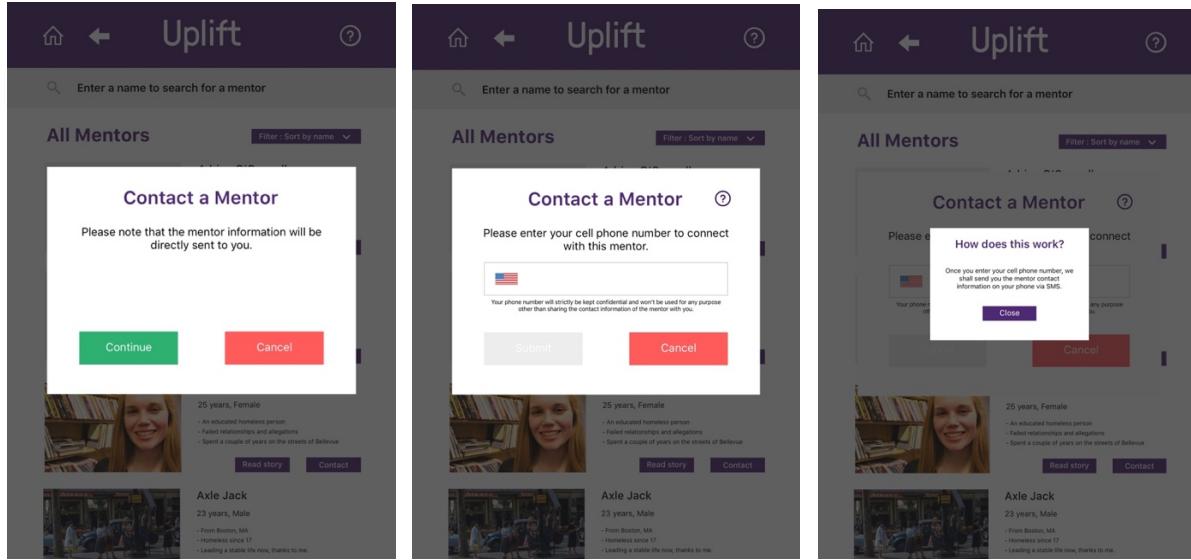
The intro screen has inviting dialogue that allows the user to become interested in what the design has to offer. The user can move to the home screen by clicking on “Find out more”. On the home screen, the user can directly view all mentors by clicking on “Contact a mentor”, or can search for mentors by clicking on “mentor” in the initial search bar (which updates the search bar to be specific search bar for mentors).



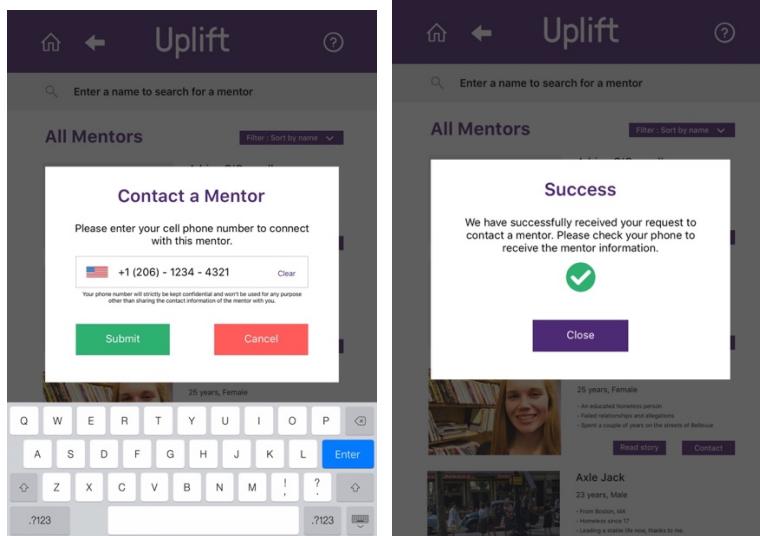
A keyboard appears, allowing the user to search mentor names, as well as suggesting names of mentors starting with the letters already inputted. Search results for mentors are similar to “All mentors” page, but with mentors matching keywords searched for. The user can view all mentors by clicking on “Contact a Mentor” on the home screen. They can choose a method to sort the

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mentors by, though the default is name. From this screen, they can choose to read the mentor's full story based on the small descriptive tags, or can directly request contact information.



If the user clicks on “Contact” from the All mentors/mentor search results page, a popup shows up informing the user that the contact information of the mentor will be sent to their phone. The user can enter their phone number to have contact information sent to their phone via SMS. The dialogue under the button reassures the user that the phone number will not be stored or used maliciously. The user can click on the question mark near “Contact a mentor” to learn more about the feature.



A keyboard pops up, allowing the user to input their phone number. The dialogue confirms that mentor contact information has been requested, directing users to their phones for updates.

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The screenshot shows a mobile application interface for 'Uplift'. At the top, there are navigation icons: a house icon, a back arrow, the word 'Uplift' in white, and a question mark icon. Below this is a search bar with the placeholder 'Enter a keyword to search for a story' and a magnifying glass icon. The main content area features a story titled 'West Philly Fail' by Mike Shinoda, published on May 17, 2017. The story includes a small profile picture of the author and a short summary of his experience with homelessness. Below the summary is a large block of text from Epicurus's 'Letter to Menoeceus' discussing pleasure and pain. At the bottom of the story page are two purple buttons: 'Contact this Mentor' and 'Send this story'.

Alternatively, the user can view a story and choose to contact the mentor from the story page by clicking on “Contact this mentor”.

Discussion

What We Learned

We learned a lot of valuable information throughout the course of this assignment. We previously had trouble when trying to find the right tasks to focus on during assignment “Getting the right design”, so when we started this assignment of “Getting the design right”, we had already thought a lot about what exactly we want our design to accomplish. This made this stage of the project go by a lot smoother.

We learned, most importantly, that we will not be able to see all possible shortcomings of our design without getting insight from our ideal target user base. We did not anticipate to have our design be so unclear in the beginning iterations of our paper prototype. We simply did not realize that homeless users have a much harder time understanding and trusting technology, and that this needs to be combatted in our design method.

How Process Shaped Final Design

The process of doing multiple usability tests and iteratively changing the design after each one finally shaped our design to be what we present in the final product. This was greatly facilitated because our participant users gave realistic feedback on how a certain part of our design could be changed to serve the user better or to no longer violate a heuristic. Because of this, we were able to not only find problem points in our design, but were able to use what advice was given to us by real participants identifying with our target base to come up with the best solutions and amendments to our design.

How Have Our Tasks Changed?

Our usability tests with homeless people seeking employment and the librarian who works closely with homeless people showed us that our tasks do not need to be changed. To our participants, the tasks themselves were clear and made sense, and they gave us advice on how to better support the tasks through our design.

Number of Iterations

The number of iterations really helped us identify clear areas of problems with our design, and definitely made our design clearer. Iteration allowed us to see errors that might have surfaced after fixing some other design flaws identified by participants in previous iterations. Ideally, we would have preferred to have a couple more iterations, to see if a participant is able to use our design and complete our tasks without having any major suggestions.

Appendix

Usability Tests Protocol

The environment in which we conducted the usability tests was Bellevue Public Library, in a public space similar to one where our design might be placed.

We prescreened our users by asking them three questions: 1) Are you homeless, or do you interact with homeless people on a regular basis? 2) Are you currently looking for employment? and 3) Do you visit the library often?

The protocol for the usability test was that we asked each user to complete a few tasks, representative of the different actions an ideal user of our design would take. We encouraged them to think out loud and tell us when they were confused, happy, or when they expected a different word/screen to show up after clicking a button. We did not give them context on what the design was centered around (helping homeless people gain encouragement) in the beginning, to figure out if our design does a good job of that on its own.

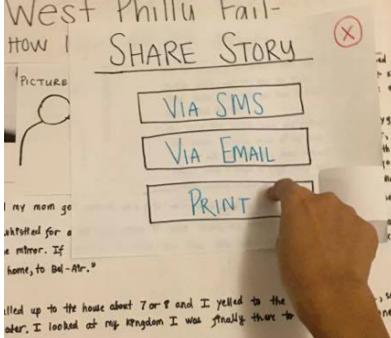
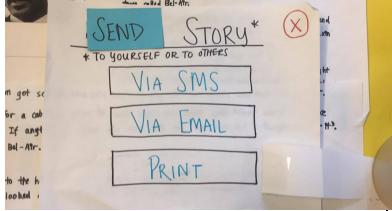
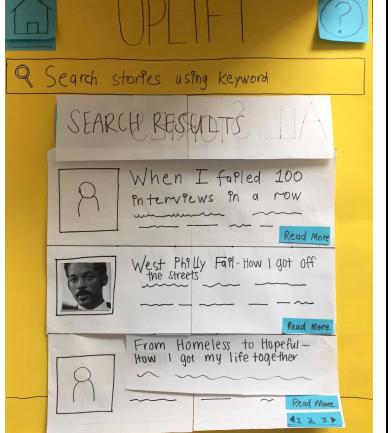
The tasks we asked the users to complete during usability testing were:

- 1) send story of the week to themselves via SMS
- 2) filter all stories by searching for “interview fail”, then pick one to print (updated later after print functionality was removed)
- 3) find all mentors sorted by availability, then request contact information of first one via email
- 4) Find all mentors that have gone through drug addiction, then read first story, then go back and read second story, then request via SMS

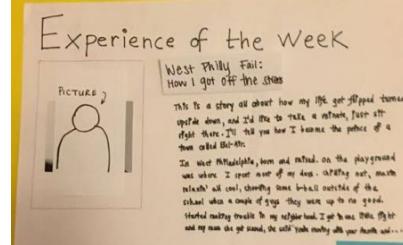
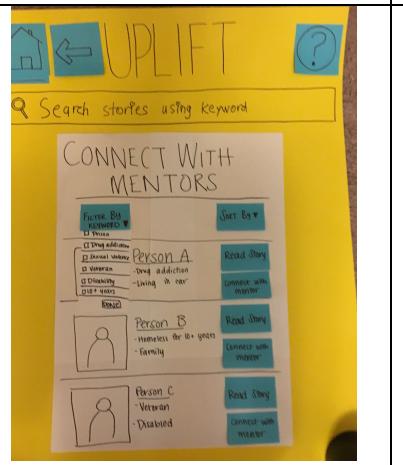
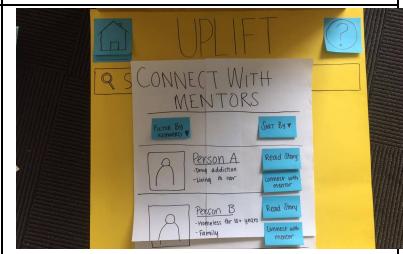
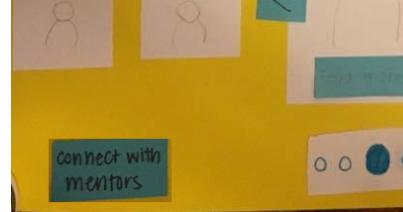
How we measured success: Participant feedback / success

Usability Tests Results / Critical Incidents

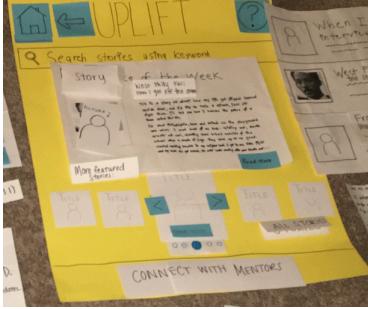
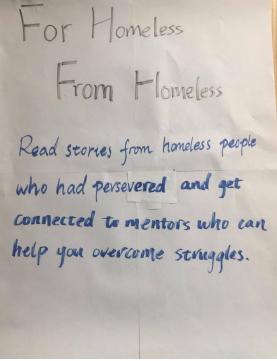
Heuristic Evaluation:

Initial Design Image	Issue; Heuristic Violated; Severity	Changes Made	Revised Design Image
	<p>Share stories button was understood to mean “share the story on Facebook”, and should be renamed</p> <p>Violates: Consistency and Standards</p> <p>Severity = 3</p>	<p>“Share story” was renamed to say “Send story” with a subscript that says “To yourself or to others”</p>	
	<p>“All stories” tag appeared in search results and with filters applied, when it should have changed to something more indicative of system status</p> <p>Violates: Visibility of System status</p> <p>Severity = 3</p>	<p>“All stories” was changed to “Search results” header when the user searches for stories, so they are not confused</p>	

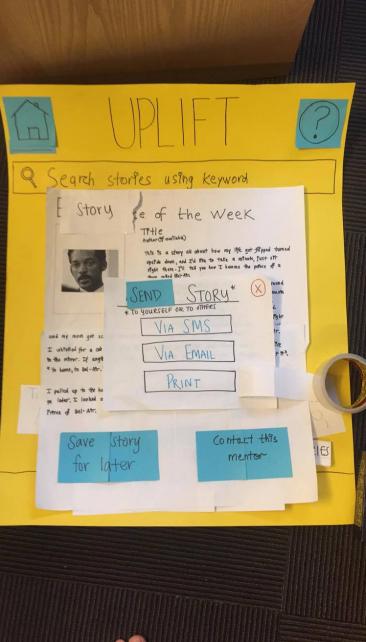
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 <p>Experience of the Week</p> <p>West Philly Fair: How I got off the train</p> <p>This is a story all about how my life got stopped because I got off the train, and I'd like to talk a minute, how I became the police of a town called Philly.</p> <p>In west Philadelphia, born and raised, on the playground was where I spent most of my days. Playing out, making friends! all cool, except some bullies outside of the school who a couple of days they were up to no good. Started making trouble. In my neighbor hood I got in bad trouble, and my mom she goes around, she tells you nothing with your friends and...</p>	<p>“Experience of the week” was the only item called “experience” instead of “story”</p>	<p>“Experience of the week” was renamed to “Story of the week”</p>	 <p>UPLIFT</p> <p>Search stories using keyword</p> <p>Story of the Week</p> <p>Title: How I got off the train</p> <p>This is a story all about how my life got stopped because I got off the train, and I'd like to talk a minute, how I became the police of a town called Philly.</p> <p>In west Philadelphia, born and raised, on the playground was where I spent most of my days. Playing out, making friends! all cool, except some bullies outside of the school who a couple of days they were up to no good. Started making trouble. In my neighbor hood I got in bad trouble, and my mom she goes around, she tells you nothing with your friends and...</p>
 <p>UPLIFT</p> <p>Search stories using keyword</p> <p>CONNECT WITH MENTORS</p> <p>Filter: Person A</p> <ul style="list-style-type: none"> 12 Years 12 Stories where Person A is involved 12 Years 12 Stories where Person A is involved 12 Years <p>Person A <ul style="list-style-type: none"> - Drug addiction - Living in car </p> <p>Person B <ul style="list-style-type: none"> - Homeless for 10+ years - Family </p> <p>Person C <ul style="list-style-type: none"> - Veteran - Disabled </p> <p>Start: Day 4</p> <p>Read Story</p> <p>Connect with mentor</p>	<p>“Search stories” remains on the mentor contact screen, and looks cluttered</p> <p>Violates: aesthetic and minimalist design</p>	<p>The “Connect with Mentors” screen was moved up and the search bar disappeared from the view (we wrote in sharpie so we could not completely cover it)</p>	 <p>UPLIFT</p> <p>CONNECT WITH MENTORS</p> <p>Person A <ul style="list-style-type: none"> - Drug addiction - Living in car </p> <p>Person B <ul style="list-style-type: none"> - Homeless for 10+ years - Family </p> <p>Person C <ul style="list-style-type: none"> - Veteran - Disabled </p> <p>Start: Day 4</p> <p>Read Story</p> <p>Connect with mentor</p>
 <p>connect with mentors</p>	<p>“Contact mentor” button on the home screen is too small and not noticeable</p> <p>Violates: Flexibility and Efficiency of use</p>	<p>The featured stories were moved up to make space for a bigger “Connect with mentors” button that takes up the entire width of the design.</p>	 <p>ALL STORIES</p> <p>CONNECT WITH MENTORS</p>

Usability Test 1:

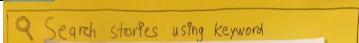
Initial Design Image	Incident (positive & negative) Heuristic violated Severity	Changes Made	Revised Design Image
	<p>Our user was initially very confused about the home page of our design. She was not able to figure out what the context of the entire scenario was, and thought it was a news page and not what our design was intended to be. We had to give our user context about what our design was trying to accomplish, and then she was able to understand.</p> <p>Violates: Help and documentation</p> <p>Severity: 4</p>	<p>We added a welcome screen to our design that would appear before the home screen, and would disappear when clicked on. This would give the user some context about what the design was trying to accomplish, and what the user could potentially do while using our design.</p>	
	<p>Our user did not know what the “Connect with mentors” button on the home screen meant. She said she would want more description, maybe underneath the button.</p>	<p>We listened to the feedback given by our participant and added a small sentence describing the “Connect with</p>	

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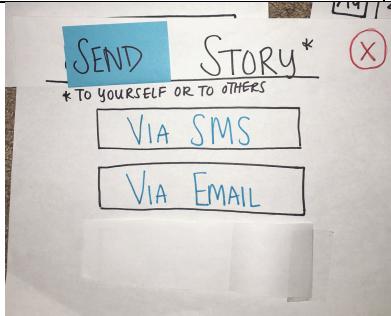
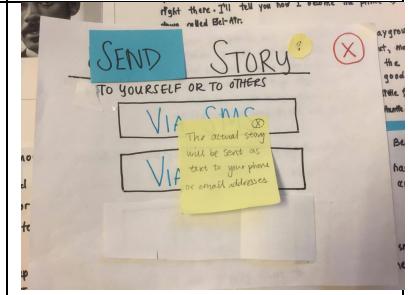
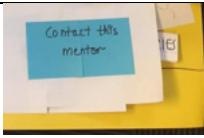
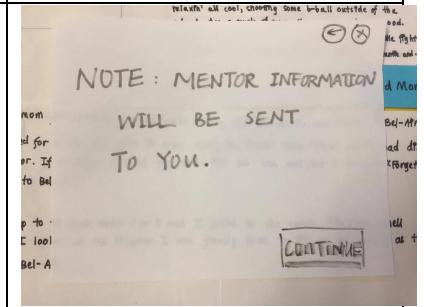
	<p>button, saying the purpose of the button on the home screen. She understood the purpose of connecting with mentors after reading the story, but was confused when it was on the home page (who are the mentors?)</p> <p>Violates: Help and documentation</p> <p>Severity: 3</p>	<p>mentors” feature below the button.</p>	
	<p>Our user did not realize that “Send story” would have a print option, and was confused that that option was on the menu that appeared after clicking on the send button. She also expressed confusion at the fact that we have a print button in the first place.</p> <p>Violates: Flexibility and efficiency of use, Consistency and standards</p>	<p>We decided that for usability and maintenance purposes, as well as for clarity, we would get rid of the print option all together. If the user wishes, they could email themselves the story and then print it at the library computer.</p>	

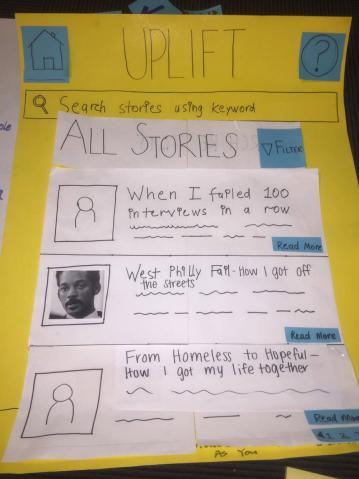
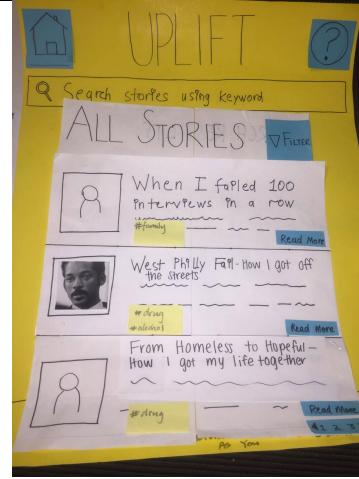
	Severity: 2		
	<p>Our user was very concerned and got taken aback when the screen after “Contact this mentor” asked for her phone number. She was nervous about the design storing her number, and was hesitant to put her number in the box.</p> <p>Violates: User control and freedom</p> <p>Severity: 3-4</p>	<p>We decided to add a small description on that page that explains that the user’s phone number is simply used to send contact information of the mentor, not to give to the user’s phone number to anyone else.</p>	

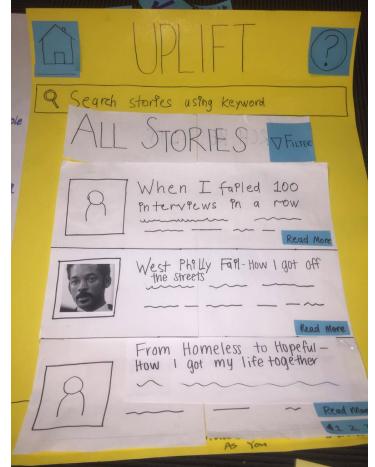
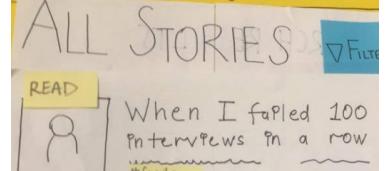
Usability Test #2:

Initial Design Image	Incident (positive & negative) Heuristic violated Severity	Changes Made	Revised Design Image
	The user enjoyed having a search feature to search keywords of the story.	NA	NA

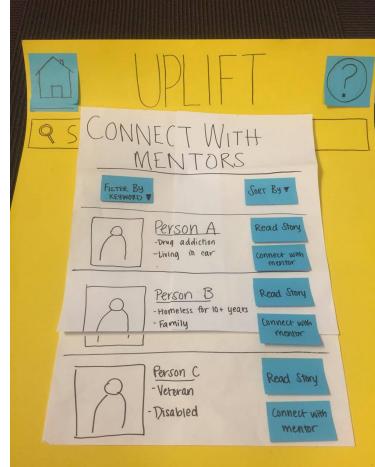
	<p>At first, the user was not sure how to proceed when faced with the welcome screen we implemented after our first usability test. He did not realize that clicking anywhere would take him to the home screen.</p> <p>Violates: Flexibility and efficiency of use</p> <p>Severity: 3</p>	<p>We added a button to the welcome screen that clearly shows the user that the welcome screen is not the home screen, and to get to the home screen, they can click on the button. (“Find out more” button)</p>	
	<p>Our user also suggested putting more welcoming words on the welcome screen. He said that, having worked with homeless people in his career, he knew that without welcoming words, homeless people would not be inclined to use our design.</p> <p>Violates: Match between system and real world.</p>	<p>We changed the wording of the welcome screen and added some more words to make it seem more personable and relatable. (added “Join the community!”)</p>	

	Severity: 2		
	<p>The user requested more descriptive words near the send story button on the story page. He told us that he was not sure what send story meant, is it sending the story itself, or a link, etc.?</p> <p>Violates: Help and documentation</p> <p>Severity: 2</p>	<p>We added a small question mark button on the send story page, where the person can click on it to learn about what exactly is meant by "Send story".</p> <p>If clicked on, a small popup appears saying "The actual story will be sent as text to your phone or email address".</p>	
	<p>The user was confused about how you can get in touch with a mentor. The button did not give enough information to the user, and he requested either an FAQ button near it or more descriptive words underneath it.</p>	<p>We added a popup that would appear before the "Request contact mentor information via.. SMS/email" page, after clicking on the "Contact this mentor" button. This page would let the user know</p>	

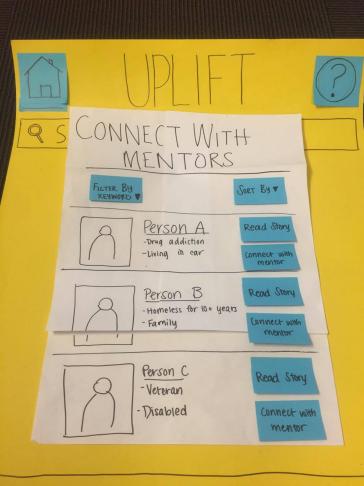
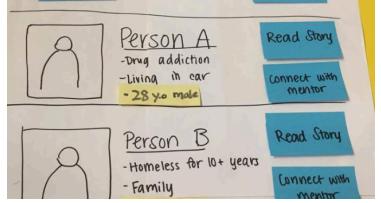
	<p>Violates: Help and Documentation</p> <p>Severity: 3</p>	<p>that the mentor information would be sent to them, vs. them being able to directly view the mentor on the screen, etc. This also would remove clutter that would arise from more descriptions on the story page.</p>	
	<p>The user was not happy about having to read the synopsis of stories to figure out what they were about. He wanted to know what they were about without reading multiple sentences.</p> <p>Violates: Flexibility and efficiency of use</p> <p>Severity: 2</p>	<p>We added tags to the stories so that the user can quickly see what the stories are about without having to read the synopsis.</p>	

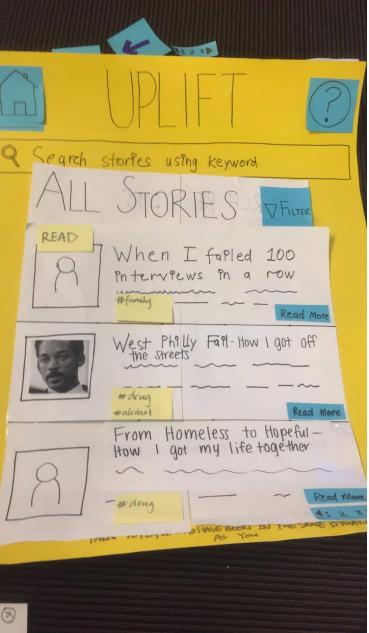
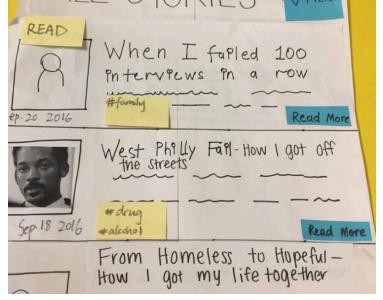
	<p>The user clicked on the same story twice, forgetting that he had already read it. He wanted to have a way to know if he had already looked at the story before.</p> <p>Violates: Recognition rather than recall</p> <p>Severity: 2</p>	<p>We added “Read” tags next to the story that would let the user know if they had looked at the story in the last 30 minutes (so that it resets before the next user).</p>	
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Usability Test #3

Initial Design Image	Incident (positive & negative) Heuristic violated Severity	Changes Made	Revised Design Image
	<p>Our user was very confused when he could only search for stories by keyword, but couldn't search for mentors by keyword (experience). He stated that he should be able to choose which topic to search for, since our design provides both</p>	<p>We changed the search bar on the home screen to be a prompt first asking the user which topic to search for: mentors or stories. Once they click on one, they can search for that specific topic. They can reset</p>	

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	<p>mentor contact and stories to read.</p> <p>Violates: Flexibility and efficiency of use</p> <p>Severity: 3</p>	<p>the search bar back to the original state as well, and when they are on the all stories/all mentors page, the search bar automatically updates with the respective topic to search for.</p>	(second image is home screen, where you can choose for which one to search for)
	<p>The user was upset that more information about the mentor was not listed in the “all mentors” page.</p> <p>Violates: Recognition rather than recall</p> <p>Severity: 2</p>	<p>We added more fields in the description under each mentor to add more information for each mentor. We added age so that the mentor becomes more relatable for the user.</p>	

	<p>Our user was confused about why there wasn't any information about when each story was published on the "All stories" page. He wanted to see how recent the most recent stories were, not just whether they are the most recent or not.</p> <p>Violates: Recognition rather than recall Severity: 2</p>	<p>We added date fields to the stories to let users know how recent the stories had been uploaded onto "Uplift".</p>	 <p>(dates added under the picture)</p>
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