

Ray of Light Dedicated Mobile App and Responsive Website

Randi D. Clevon

Project overview



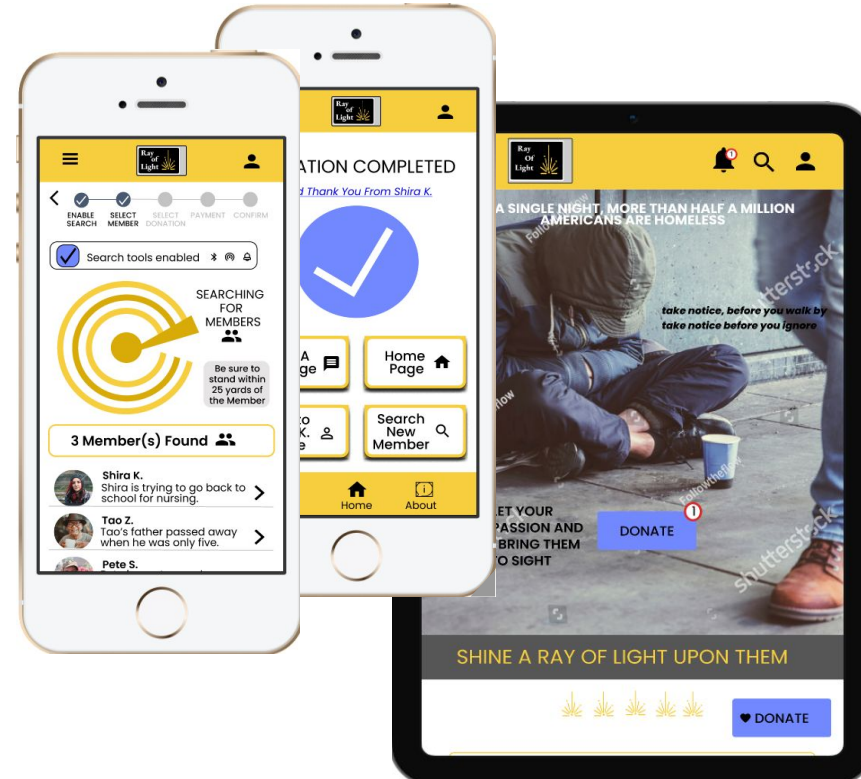
The product:

Ray of Light has two main products: A dedicated mobile app that allows users, through bluetooth technology, to quickly, easily and anonymously donate on a one-time basis money or needs to a person who is homeless as they come within 25 yards of them. The second product is a responsive website that allows users to also donate to a person that they came near using the app but also lets them to do more in-depth research into the homeless, read their stories, donate to other homeless persons, donate to other homeless emergency campaigns and funds, sort through immediate needs and choose to donate monthly if they wish.



Project duration:

December 2022 to February 2022



Project overview



The problem:

Users need a fast, easy and anonymous way to donate to people who are homeless when they see them on the street. It is too awkward and users feel unsafe approaching them directly plus they want to know where their money is being donated, i.e., not for drugs or alcohol.

Users also need more education on homeless and want other ways to donate and to show they care. Users want to help the homeless get a home.



The goal:

Design a dedicated app and a responsive website that allows a quick, easy and anonymous way for users to donate to people who are homeless as they pass by them and/or to featured homeless who have immediate needs. Also to allow users to get more education on the homeless, dig deeper into their situations and allow users to actually give hope and ultimately help house a homeless person.

Project overview



My role:

UX Designer designing a homeless person donation and education dedicated app and website from conception to delivery. Including UX research, product design, visual design and interaction design.



Responsibilities:

Conducting interviews, creating persona's, conducting competitive audit, constructing paper and digital wireframing, building low and high-fidelity prototyping, designing responsive websites for multi-sized screens, conducting usability studies, analyzing affinity diagrams, composing actionable insights, accounting for accessibility, and iterating on designs.

Understanding the user

- User research
- Personas
- Problem statements
- Competitive audit
- Ideation

User research: summary



The first research I did was to conduct a 10 question survey to the 5 people who lived in areas where they see and have passed by persons who are homeless. That survey opened my eyes to several pain points in helping people who are homeless. Most people in the survey said that they were saddened by the sheer number of people they saw and they felt guilty ignoring them and they were frustrated that there was no easy way to donate money, food or items to the people in a safe or anonymous way. They were surprised there really is no easy way to get local information and give help to a person who is homeless on the internet. A second pain point was that they felt upset that they were uncomfortable trying to communicate to the homeless that they cared about them. They were worried that if they just ignored them, it would perpetuate the invisibility stigma already associated with the homeless. Another pain point was that they were worried about if they handed someone money, that it would just perpetuate the problem of alcohol and drugs and there was no way to be sure their money was being used in helpful manner.

I completed a competitive audit that really showed me the different ways some people are trying to help the homeless. One group was actually building them homes. One was encouraging users to report homeless camps or people so they could send help. The main thing I noticed is that what I wanted to do only somewhat existed in one city as a crowd-fund app. No where else is there an app that directly donates to a person who is homeless that you walk by. Using the main pain points plus realizing there was a major gap in donating directly to people who are homeless, I was able to come up with a direction for both the dedicated app and the responsive website. Basically, I wanted the dedicated mobile app to be a beacon- or ray of light as I called it, to seek out the person in need as you walk by so their profile pops up and you can easily click a few prompts and donate. The website needed to be more for users who wanted to dig deeper into the plight of the homeless and to educate them, give more ways to donate, send them messages of hope and to give monthly.

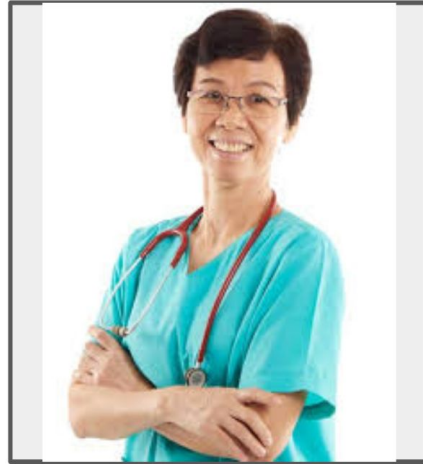
Then I conducted a moderated usability study with different users than the original surveys on my low fidelity prototype to see if I was heading in the right direction with the app and most of these users said they would absolutely use it so I knew I was on to something. Since I really had no app that existed to base my designs off of, I had a hard time with the homepage and it showed on the usability study. Every user was confused how to start the donate process. I realized after the study, using their suggestions, that my third page really should be my homepage. I also had a lot of extra buttons that were confusing to users so I got rid of most of them, and just gave the app a simple, streamlined approach. The same with a lot of the wording- it was also confusing so I shortened it all to a word or two and it really helped. I iterated on the design several times until I felt it resolved those issues.

Finally, I conducted a second moderated usability study on my high fidelity prototype. Luckily, the homepage decision was spot on and the simplified and streamlined donation process definitely seemed clear since all 5 of them got through the process easily. There were a few minor modifications but nothing serious and the end question was if they would use the app and all 5 said definitely. One of the users wanted to download right away and go find as many people as she could to donate to.

Persona 1: Althea

Problem statement:

Althea is a traveling nurse who sees large amounts of homeless people in her travels who needs to use an app on her phone to quickly, easily and anonymously donate to a homeless person as she walks by them because she is too nervous and feels unsafe to approach them and physically hand them money or food but wants to help them and let them know that she cares.



Althea

Age: 51

Education: RN - ADN

Hometown: Charlotte, NC

Family: Married, 2 Adult Children

Occupation: Travel Nurse

"I make it a habit to donate to homeless people in every large city I work in but sometimes feel unsafe so I would love an app to provide a safe place for me to donate money directly to a homeless person as I walk by them but with no interaction."

Goals

- Wants an app that allows her to donate to homeless people on the fly in a safe, non confrontational way when she walks by them.
- Would like to connect with the homeless by sending them an encouraging message over the app.
- Wants to set an example by not ignoring the homeless even if she only gives a small contribution.

Frustrations

- Saddened by the sheer numbers of homeless people in big cities.
- Frustrated there isn't a safe and anonymous way to donate to the homeless quickly and easily over her phone.
- Upset that she is unable to communicate that she cares about them.
- Worried that if she walks by homeless people without helping them is perpetuating their invisibility.

Althea is a traveling nurse and frequently is called away to large cities like New York and Los Angeles. The one thing that has stood out in her years of travel is the sheer number of homeless people she has witnessed in these large cities. It bothers her so much she had decided long ago to always make it a habit to donate to one homeless person every day she is in one of those cities. She usually gives some cash or a meal depending on the situation. She would love an app that would quickly and easily allow her to donate anonymously to a homeless person that she walks by. It upsets her that she cannot communicate how much she cares for these people. Her company pays for all her meals and she figures since she is eating for free, she may as well donate a meal to someone who needs one. Althea really wants to make a difference to them even if it is only one small contribution.

Persona 2: Mario

Problem Statement:

Mario is a busy professional who sees a lot of the same homeless people every day on their walk to work who needs to use a website, later after work when they have time to research and eventually donate money or items to the specific homeless people they walk by every day because they don't have time, are too nervous to stop and just give money or items and would like to know specifics about the homeless person if possible and also what their exact needs are.



Mario

Age: 27

Education: MS in Genetics

Hometown: Evanston, IL

Family: Single, 2 cats

Occupation: Researcher at UIC

"I walk by this one homeless guy with a cute dog every day when I get off the train to go to work and I wish there was an easy and safe way for me to help him."

Goals

- Wants a website to easily and safely donate to a particular homeless person.
- Wants to learn about homeless people in their neighborhood.
- Would like a way to pick where their donation is going to like food, clothes, etc.
- Wants to feel like they are making a difference in the lives of the homeless they are donating to.

Frustrations

- Saddened by the homeless people situation they witness on their walk to and from work every day.
- Frustrated that there is not an easy and safe way to donate to the homeless people they pass by.
- Concerned they will not be able to control how their donation is spent.
- Shocked there aren't easier ways online to help and learn how people can get a roof over their head.

Mario is a young scientist who loves their job as a lead researcher in DNA and chromosome abnormalities. They are shocked and upset by all of the homeless people they see every day after they get off the train and walk the 4 city blocks to their lab. They see a homeless man with a dog all the time who never begs and they feel very sorry for both of them. They wish there was a website they could scroll through later, after work, where they could have a safe and easy way to donate to that man and others because they are hesitant to approach the homeless directly. Picking where the money is going to is important- they don't want it to go to alcohol. Mario wishes that they could look up and read some of their backstories on a website and how or if they are being helped on a larger scale than just one-off donations, like job placements or job training. Mario would love to give to that particular man on a regular basis, but anonymously, if they could.

Competitive audit

An audit of key competitor's apps and websites by analyzing their strengths and weaknesses provided insights into gaps and opportunities for designing my own dedicated app and responsive website.

Competitive audit									
Goal: Compare the user experience of each competitors website focusing on the donate function									
General information								First impressions	
Competitor type <small>(direct or indirect)</small>	Location(s)	Product offering	Price <small>(\$ - \$\$\$)</small>	Website <small>(URL)</small>	Business size <small>(small, medium, large)</small>	Target audience	Unique value proposition	Desktop website experience	App or mobile website experience
Samaritan	Direct Seattle, Oklahoma City, Los Angeles	a way to donate money for their needs directly to a homeless person that you pass by and also a way to donate to other homeless people that are featured	N/A	Samaritan.city/fund	medium	people who want to donate to a person who is homeless	can donate directly to the homeless person you walk by on the app	OKAY + Imagery is good + good top menu bar with drop down lists + sleek, modern design - Too busy, hard to follow and hard to read - Too much movement - don't know where to donate - nothing stands out	GOOD + Immediately and clearly tells you to turn on bluetooth + Large text and large checkboxes + good images of people in need with their needs + can donate or message right on image with icons - Nothing to indicate or look at their story
HomesNow	Indirect Washington	a way to donate and/or volunteer to build tiny homes for homeless people and also a way for the people who need a home to apply	N/A	HomesNow.org	small	people who want to donate money to build tiny houses for people who need homes and/or people who want to actually volunteer to build the tiny houses; also for the people who want to apply for a house	actually permanently and temporarily housing people who need homes	OKAY + Easy to read + Top menu bar with dropdown lists - donate does not stand out - it's in a drop down list - too much going on on the home page	N/A
OurCalling	Indirect Dallas, TX	A way to donate, volunteer and also help people who need shelter by snapping a pic of them and sending the pic and location to the people in charge of the website	N/A	Ourcalling.org	small	People who want to donate money, volunteer and/or help people they specifically see who they think need help. Also a way for homeless people themselves to find resources for themselves	gives a way to take a picture of a homeless encampment and then map that encampment and then send that information to the people running the app and then they can send them help.	OUTSTANDING + Imagery moves but is slow and not overwhelming + Visually pleasing to look at + nice top menu bar in white on black- very easy to read - 4 different locations on the homepage to donate all of them in green + sleek and modern + Good use of icons and hierarchy	OKAY + Streamlined - only has 4 selections on the bottom and a hamburger menu on the top - Donate is on the bottom, doesn't really stand out - There is no homepage - this feels odd - brings you directly into explore section - It's hard to read the items at the bottom there is not enough contrast

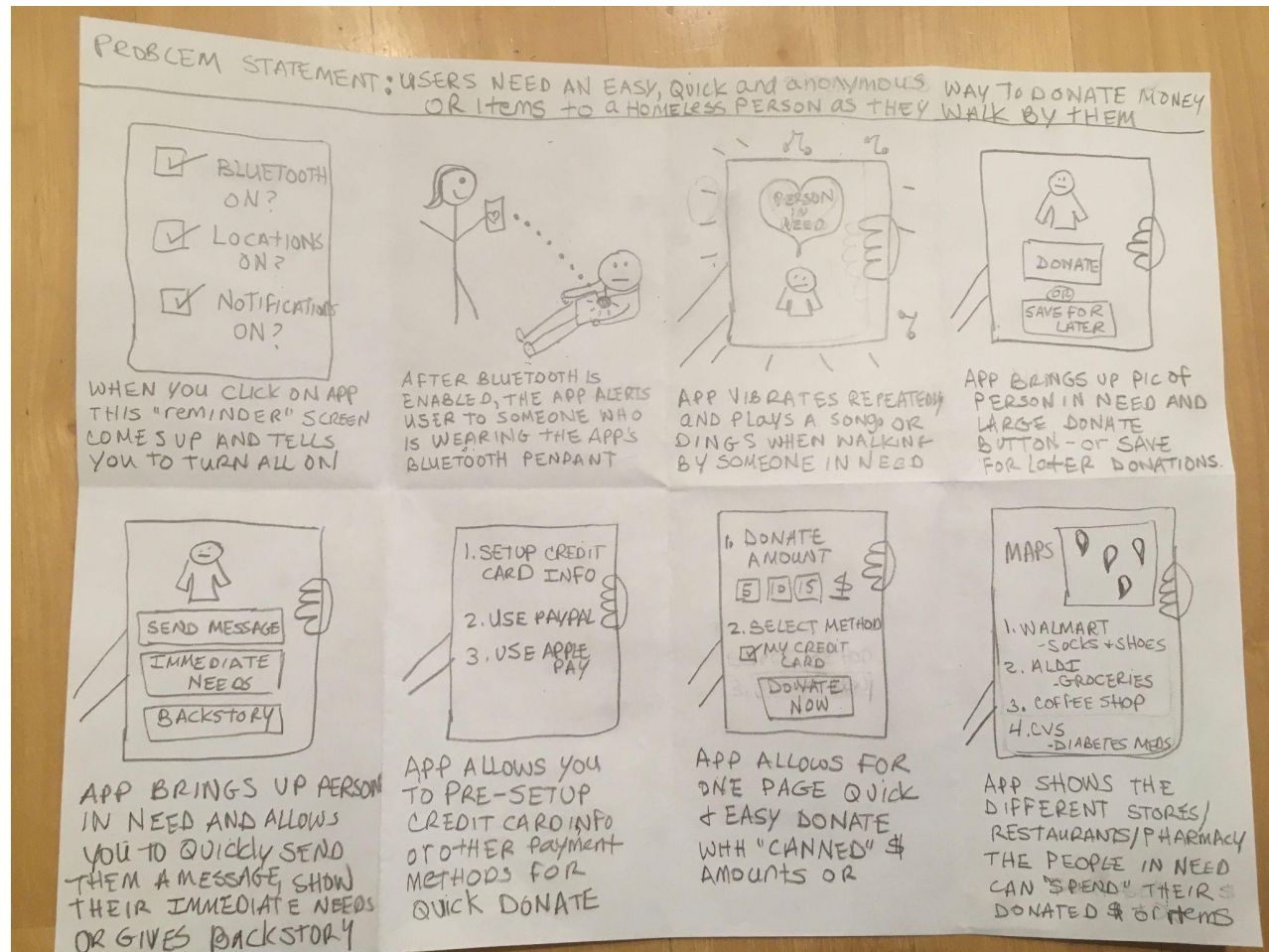
Competitive audit						
UX <small>(rated: needs work, okay, good, or outstanding)</small>						
Interaction			Visual design			
Features	Accessibility	User flow	Navigation	Brand identity	Tone	Content
Samaritan	GOOD + Immediate needs feature + online donation feature for both app and website + gives numbers and stats - Nowhere to find story about the people	NEEDS WORK - No clear hierarchy, difficult to scan quickly - Menus are easy to find but hard to understand - home page is too busy on website - hard to figure out how to donate	OKAY + Clear indication of clickable elements + Drop down menus are nice - Somewhat difficult to navigate	OUTSTANDING + Strong brand identity, including colors, font, style, motion, imagery, and photography	Serious and direct	OKAY + Detailed in places + Good imagery - Hard to follow - key information is missing
HomesNow	GOOD + Different donate functions- paypal, gofundme and recurring monthly donations, mail, in person, and amazon smile and building materials + Lots of volunteer opportunities, too +big Facebook presence	OKAY + color contrasts are good- easy to read - only available in English - buttons and lines are too close together	NEEDS WORK - No obvious hierarchy at all - Menus are not super obvious - Donate does not stand out at all	OKAY + Colors are consistent but there are too many colors + Consistent style - it is not sleek but there is a consistent style - Typeface is inconsistent	Serious and direct	OUTSTANDING + Every section has a lot of des imagery + Easy to figure out all the things
OurCalling	OUTSTANDING + Take a picture of an encampment is excellent + Donate is front and center + Good use of location on a map to show where all the resources are	GOOD + Color contrasting is good on website but not on app + Spacing is good- not a lot on each page- lots of white space- easy to read - Only available in English	NEEDS WORK + Clear Hierarchy + Menus are easy to find + Donate process is a clear flow - users deception in the flow and takes you to monthly donations instead of the ontime	OUTSTANDING + Clear indication of clickable elements + Drop down menus are good + Easy to navigate and scroll	OUTSTANDING + Strong brand identity, including colors, fonts, style, motion and imagery	Serious and direct RATING + detailed descriptions in each menu + great hamburger menu on app describes all the things you can do + even has description on how to

Click to view the full [Competitive Audit](#) and [Audit Report](#)



Ideation

I did a quick crazy 8's exercise in addressing some of the gaps that I found in my competitive audit. Specifically, I focused on **quickly and easily donating money or items anonymously to a person who is homeless as you walk by them.**



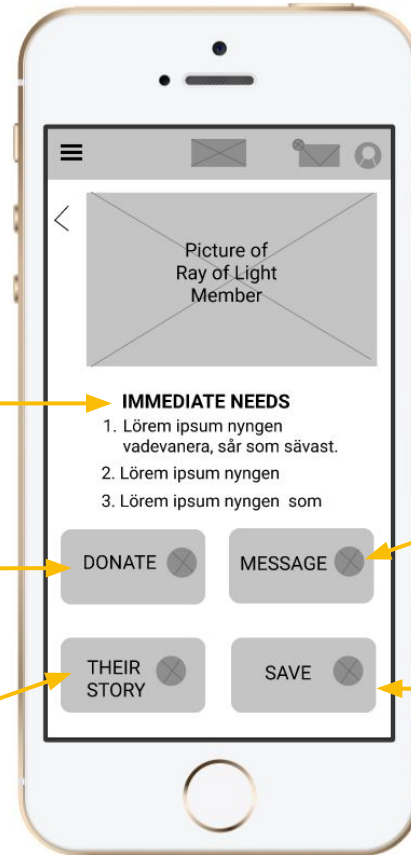
Digital wireframes

Users needs: A quick and easy way to donate is obvious with a **large and obvious donate button** as the first button. A **listing of Immediate needs** shows where this person is lacking and **gives the user more control** and makes them feel good when they know where the donation is going. A **message button** allows users to send a message of encouragement, hope and care - it **allows users to show the person in need** they are not invisible and **that someone cares**. A story button gives users a leg up on why persons in need are without housing creating empathy for users. The **save button is great for users who are either hesitant or don't have time to donate** and want to look further into the donation later, at home, when they have time to do some research and read up on the person in need.

Listing of Immediate Needs so you can help the person in need where it counts most.

Want to quickly donate? Click the large donate button.

Want to know more about the person you are donating to? Read their back story here,



Want to send a message to the person in need? Click the message button and then you can show them you care.

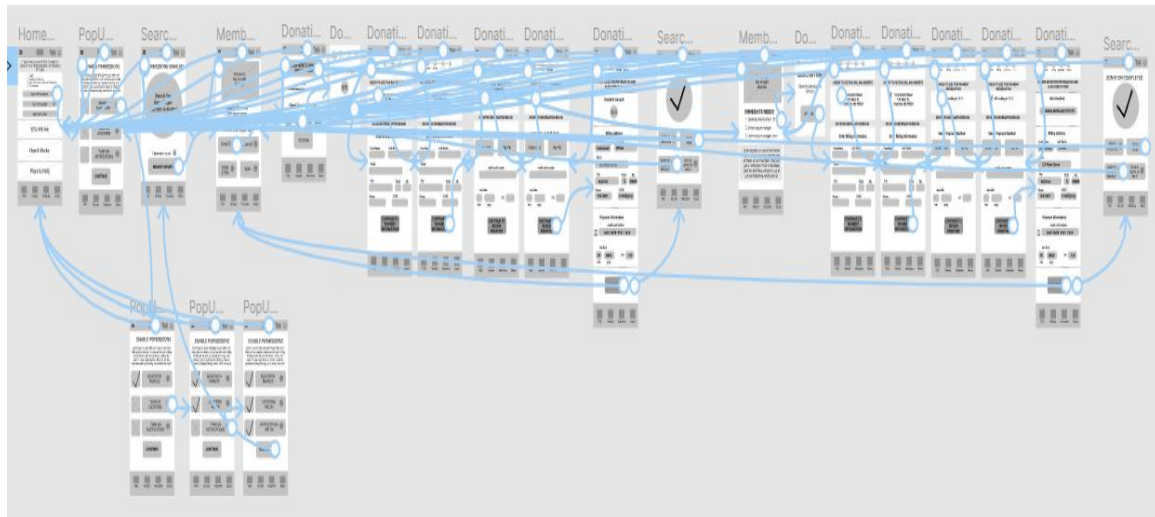
Don't feel like or have time at the moment to donate? Save the profile and go back later at home or the office, get on the website and look and donate then.

Low-fidelity prototype

View the Ray of Light Lo-Fi Dedicated Mobile App:

[Low Fidelity Prototype](#)

Using the completed set of digital wireframes, I created a low-fidelity prototype. The **primary user flow I connected was donating to a person in need as you walk by them**. The user lands on the homepage which informs them to enable their permissions. After they enable them, the app proceeds to the locate/radar page and they wait for person's in need to pop up on the screen. You can click into their profile and then start the donate process. The app walks you through donating money or items with just a couple of clicks and lets you know when it is completed.



Usability study: parameters



Study type:

Lo-fi moderated usability study I February 13, 2022

Hi-fi moderated usability study II February 19, 2022



Location:

USA, remote Lo-fi usability study I

USA, remote Hi-fi usability study II



Participants:

5 participants Lo-fi usability study I

5 participants Hi-fi usability study II



Length:

45-60 minutes Lo-fi usability study I

20 minutes Hi-fi usability study II

Usability study: findings

I conducted two moderated usability studies each with 5 users. Both studies were remote. The first one was about 45 minutes and the second one was 20 minutes.. The first study was using a low fidelity prototype on Figma and had 9 questions pertaining to a primary user flow of donating to a Ray of Light Member. Findings from this study helped guide the design from wireframes to mockups. The second study was using a high fidelity prototype in Figma and had 4 questions pertaining to the same user flow as the first study, the donation process. This study revealed what aspects of the mockups needed revisions.

Round 1 findings

- 1 Users need a more intuitive way to start the donation process.
- 2 Users need a better way to set up the permissions on the app.
- 3 Users need an easy and obvious way to donate multiple immediate needs.
- 4 Users need a clear indication on how to donate money or Immediate Needs.
- 5 Users need clearer and simpler wording on the radar screen.
- 6 Users need a clear and obvious way to donate to multiple Members.
- 7 Users need a more intuitive way to send a message to a Member that makes sense..
- 8 Users need a more intuitive spot for the donation history section.

Round 2 findings

- 1 Users need a clear and obvious way to close the hamburger menu.
- 2 Users need a more intuitive way to enable or turn on the slide buttons.
- 3 Users need a simple description or explanation of how the app gets the items physically into the hands of the Members.
- 4 Users need a way to easily get a receipt after their donation.
- 5 Users need a more prominent representation of the radar image so they know the app is searching.

Ray of Light Jam Board Usability Study I

In my research, I typed every single response and observation from the usability studies onto post-it notes. Using the Jam Board, I organized users pain points into themes. The themes became insights and then I prioritized the insights. These prioritized insights became the necessary improvements, based in quantitative research, to allow the product to flourish.



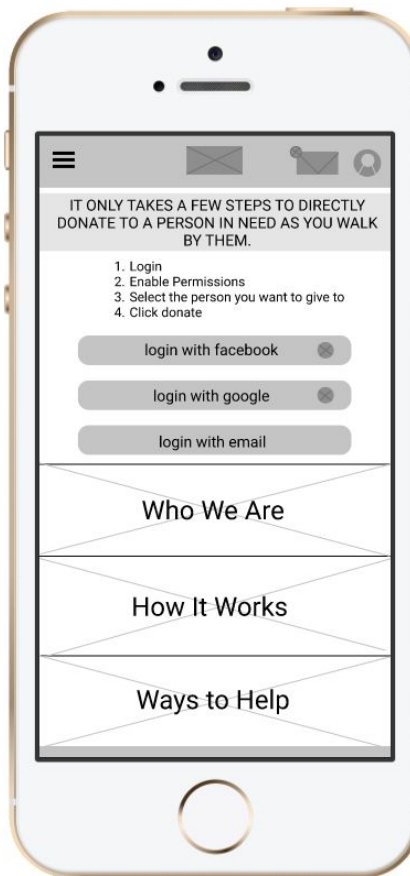
Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

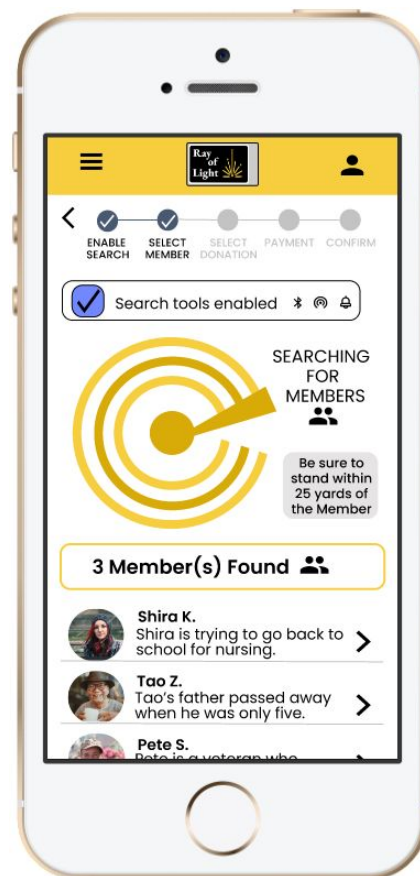
Mockups

Users needed a more intuitive way to start the donation process. Most apps lose the login screen once you login the first time and the users I was focused on were ones that download the app and use it all the time, not newly created users. So, it made sense to **make the main homepage, the search/radar page**. I had this page, but it was the third page in the original process. So when a user is in an area with a lot of people who are homeless, they **just tap the app and this homepage/radar page comes up and automatically starts searching for Members who have a bluetooth pendant**. This page will tell you if your bluetooth is not turned on in the **search tools enabled/disabled bar on the top**. It will also then start popping up Members you can donate. There is a clear **right arrow indicator** where to click to get more information on the Member in need and **start the donation process**. The **radar picture will “pulse” to indicate it is searching**. This page also gives you a clear indication of **where you are in the process of donating** to a person in need. I put “who we are” and other info in the hamburger.

Before usability studies



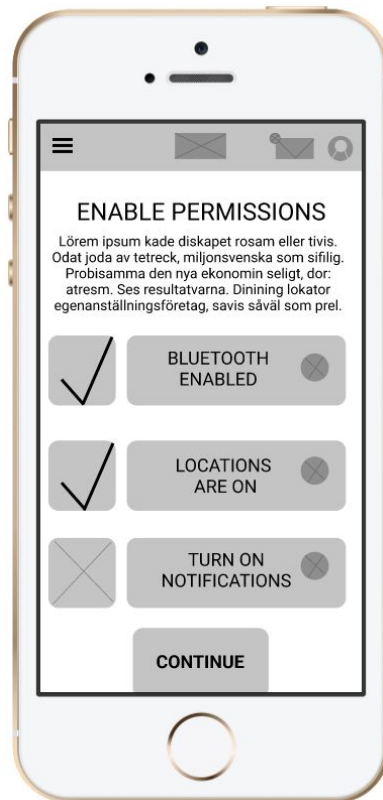
After usability studies



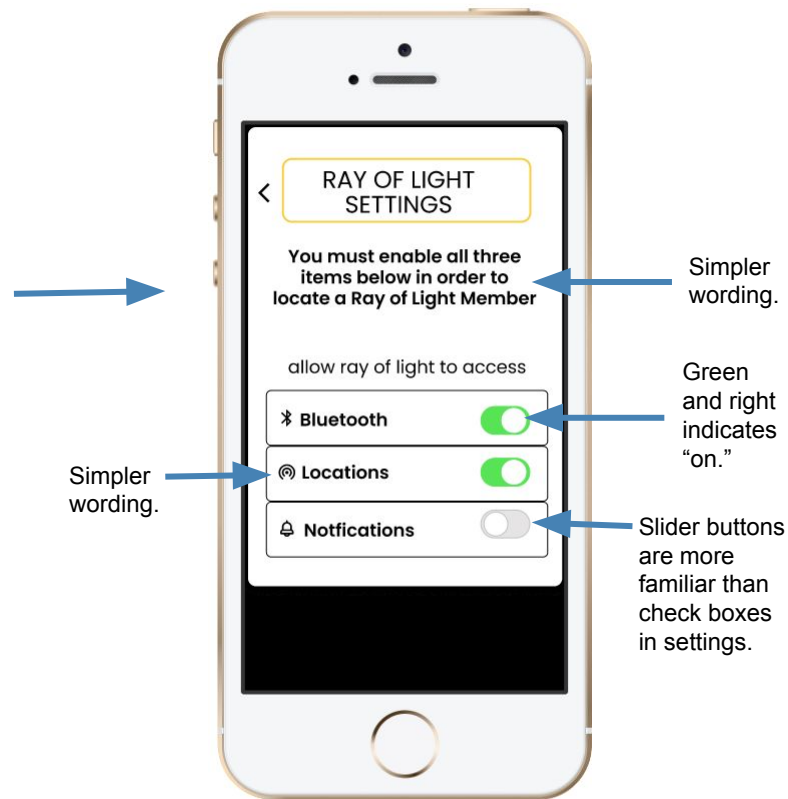
Mockups

Users needed a more intuitive way to enable the permissions. Originally, I thought I would make a large, obvious permissions page but that just seemed to make things confusing. I created a **streamlined permissions page** that looks more like a settings in an app so **it looks familiar to users**. The new **slider buttons are used in most settings** and make sense to tap or slide the permission on and off rather than figure out which box to check in the original page. The **green color also makes it obvious it is on**. I also **explain to users they have to enable all three items** to get the Ray of Light app to find a Member in need.

Before usability study



After usability study



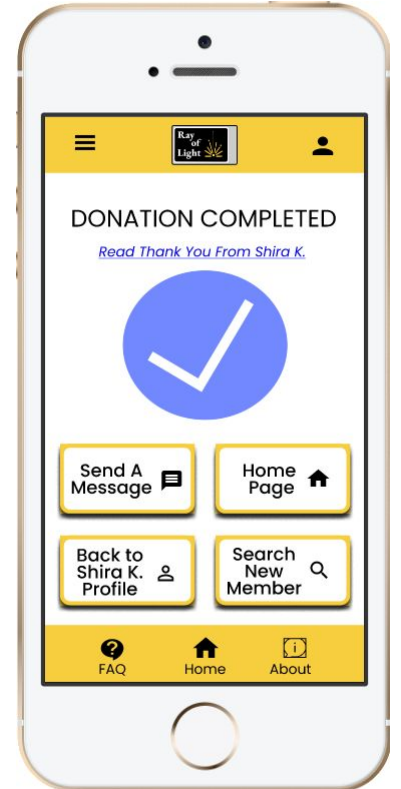
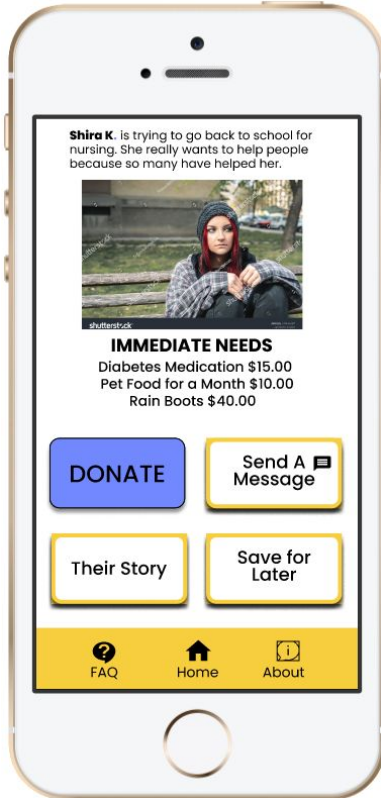
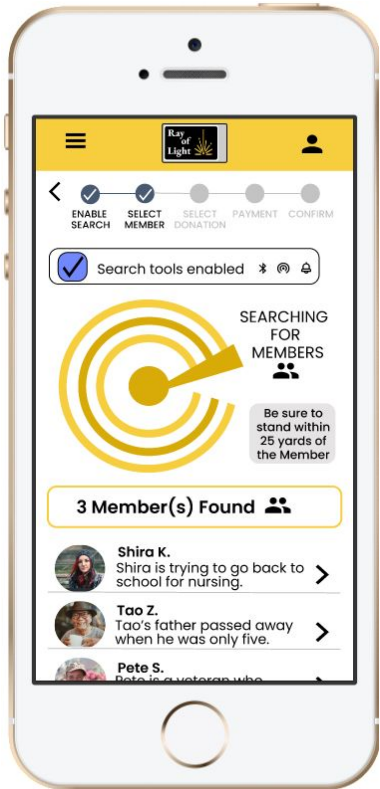
Simpler wording.

Green and right indicates "on."

Slider buttons are more familiar than check boxes in settings.

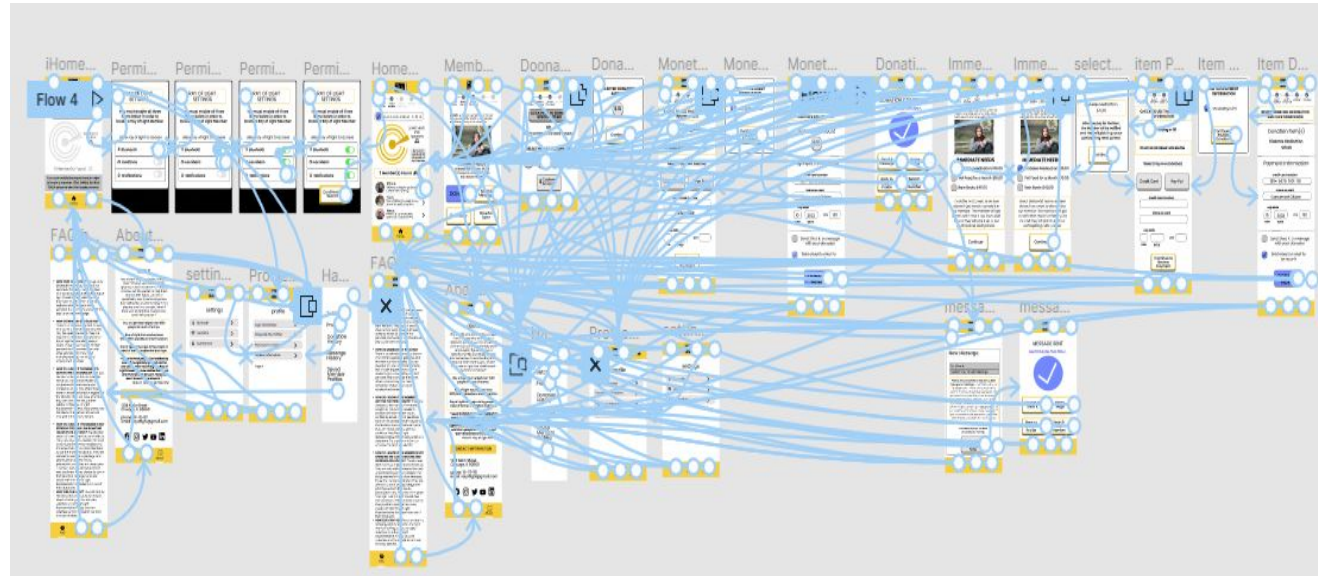
Simpler wording.

Mockups



High-fidelity prototype

The final high-fidelity prototype has a more intuitive way to start the donation process, a more logical and familiar way to enable the permissions and **follows the same user donation process as the lo-fi prototype**. It asks to donate money or items, the donation amount, the payment type, lists a review of your input and gives the user a confirmation page.



View the Hi-Fi Ray of Light

Dedicated Mobile App:

[High-Fidelity Prototype](#)

Accessibility considerations

1

All color combinations meet WCAG contrast ratio rating of good and above.

I included a “language” selection on the top of the hamburger menu as the first item and on the homepage of the responsive website.

2

Icons and imagery are used in addition to text throughout the website and app in many places and on several pages to make navigation easier.

I used landmarks to help users navigate the site.

3

I used text with different sizes for clear visual hierarchy for users with assistive technologies.

All smart animation is equal to or less than 500ms for optimal accessibility.

Responsive Design

- Information architecture
- Responsive design

Sitemap

After designing the dedicated mobile app for Ray of Light, I moved on to designing a responsive website. I spent a long time on this site map - mapping from the app to the responsive web pages - I had to think out each menu item and what it needed it to do. This really helped to keep the product consistent and logical across devices.



Responsive designs

The designs for screen size variation included mobile website, tablet and desktop. I refined my designs to fit the user needs for each of the screen sizes to provide the best user experience on each device.

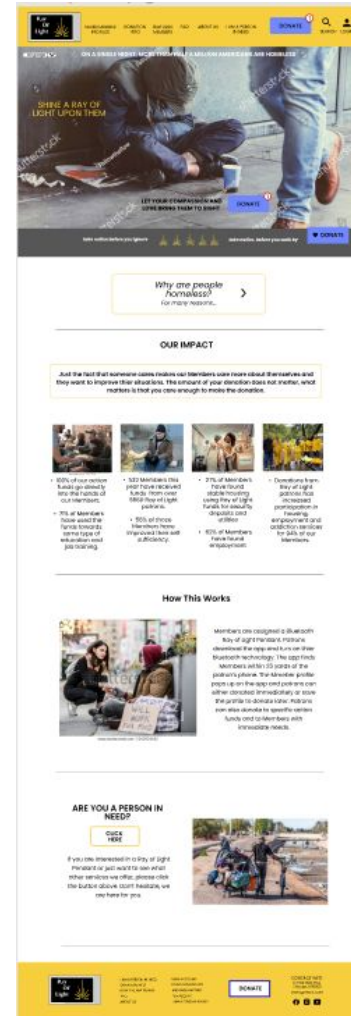
Mobile Website



Tablet



Desktop



Going forward

- Takeaways
- Next steps

Next steps

1

Conduct an unmoderated usability study to see if our insights from the last study were on target and to understand users needs from a different view in a real world situation.

2

Narrow the participants in the next usability study to those who have different types of disabilities to make sure assistive technologies are working smoothly.

3

Add some type of reward or incentive to users who donate or message our Members and offer more opportunities for them to help besides donations.

Takeaways



Impact:


The website makes users feel like they can walk by a person who is homeless and donate to them anonymously and safely without the guilt of ignoring them or turning away or saying no. It makes users want to donate and feel like they can in a safe way and ultimately feel like they are setting an example, improving someone's life and helping society as a whole.

"I really want to download this app and make a day of it... just walk around and see who pops up and then donate to each one - either a need or just give them cash- It would feel so good to go do that for a day instead of walking the other way to avoid them. Just think of everyone you'd impact!" -R.N.

(quote from participant from usability study II)



What I learned:

While designing the Ray of Light responsive website, I learned that I still have a long way to go with UX design. I had an idea that did not have a website to go off of, so I had to come up with a lot of the design on my own- which ended in 12 insights from the usability study. And that was just from one user flow. Luckily there is the usability study so I could greatly improve what I had done and completely re-do the homepage. The good news is, I really get most of the UX concepts and I love, love the process, each step just makes so much sense and builds upon the next. Whoever designed these steps really thought them out in detail and they just flow into each other nicely. I feel like I've really come a long way and I'm a better person for it. I understand people better and I understand what products should be doing better. 

Let's connect!



Thank you for your time reviewing my work on the Ray of Light responsive website!
If you'd like to see more or get in touch, my contact information is provided below.

Email: randi.cleven@gmail.com

[Link to Portfolio](#)