Redistribution to Reduce Food Waste Application Design

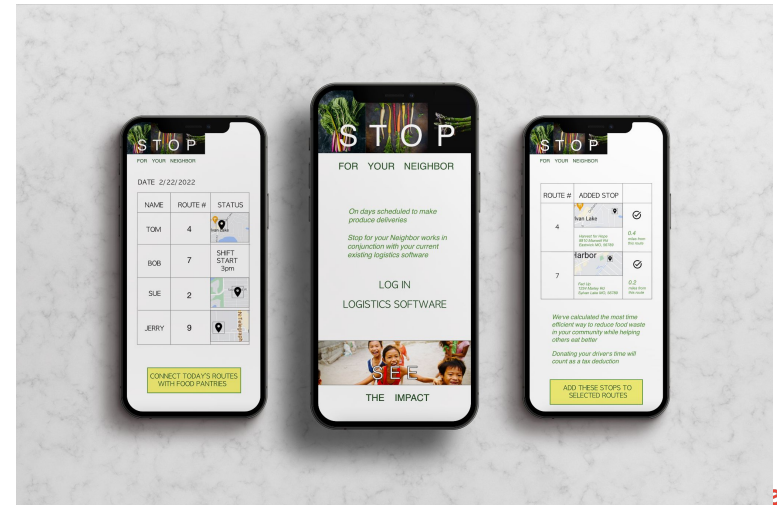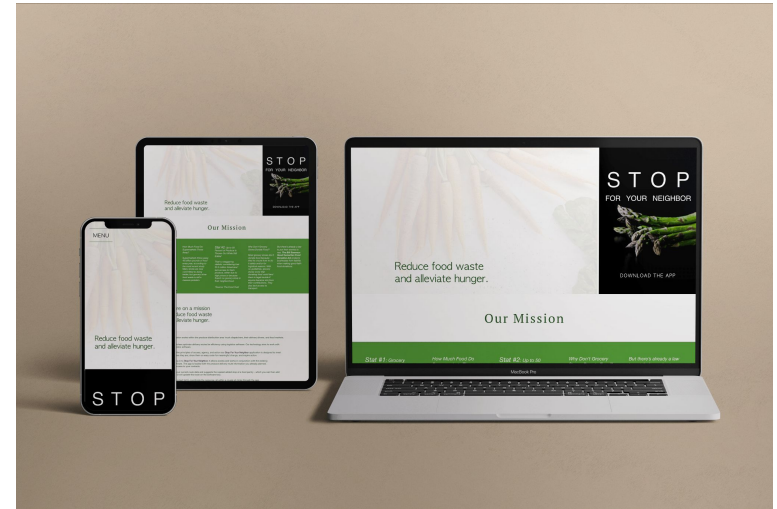Elizabeth Szczesny

Project overview

The product:

This app is aimed to work in conjunction with existing logistics software so that truck dispatchers who work with deliveries of fresh produce may add a time efficient stop at a food pantry

Project duration:

February 2022 - March 2022

Project overview

The problem:

Aiming to reduce food waste and alleviate hunger in communities this app addresses the problem markets face when they do not have the logistical support they need to donate unsold produce rather than compost

The goal:

Create an app that utilizes the existing produce delivery routes and logistical system, leveraging these established routes and systems to simply accommodate one additional stop at a food pantry

Google

Project overview

My role:

UX and UI Designer, UX Researcher

Responsibilities:

User research, wireframing, prototyping

Understanding the user

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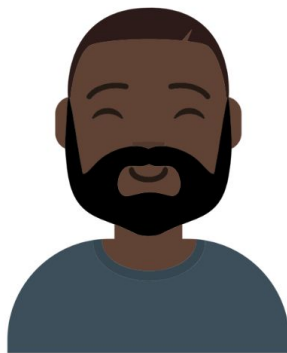- Ideation

Google

User research: summary

For the beginning of this project I conducted secondary research. I researched the barriers grocery stores face when trying to donate unsold produce. I read blog articles, visited non-profit websites addressing food waste, and learned about the laws and logistics surrounding food donation.

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Persona 1: **Jordan**

Problem statement:

Jordan is a truck dispatcher who needs streamlined communication because he has to juggle several drivers' routes.

"Truck dispatch management software can streamline communication, find the most efficient routes and house all trip information in one easy-to-use application."

Jordan

Age: 37
Education: Bachelor's Degree
Hometown: Waukesha, WI
Family: Married
Occupation: Transportation Router and Truck Dispatcher

Goals
- Find the most efficient routes to save the company time and money
- Implement truck dispatch management software

Frustrations
- Communication with his drivers is through a multitude of channels- (e-mail, text, radio)

Jordan loves to connect with his drivers. He finds the best scheduling, routes, and systems to benefit as many people as possible-both those working in the company, and its clients. An initiative that helps give back to the community would be of great interest to Jordan.

Google

Persona 2: **Malcolm**

Problem statement:

Malcolm is a truck driver who needs a way to redistribute unsold produce because he sees too much going to waste.
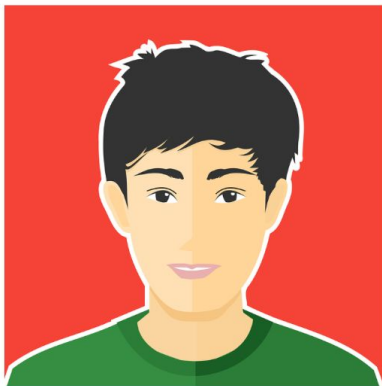
Malcolm

Age: 28
Education: Associate's Degree
Hometown: Milwaukee, WI
Family: Pet
Occupation: Delivery Truck Driver

"I wish I had the means and tools available to me to reduce food waste - particularly the produce which can still be eaten."

Goals

- Transport and deliver produce to clients while ensuring accuracy and timeliness

Frustrations

- Farmers have surplus produce they are unable to sell
- Grocery stores too often throw away or compost 'older' produce and he sees it go uneaten

Malcolm is mindful of the amount of produce that goes to waste in his community. He sees firsthand in his route the amount of food being delivered and eaten. He makes large deliveries of produce to stores daily, while not all of it can be eaten by those shopping in time. His family used food pantries at times while he was growing up.
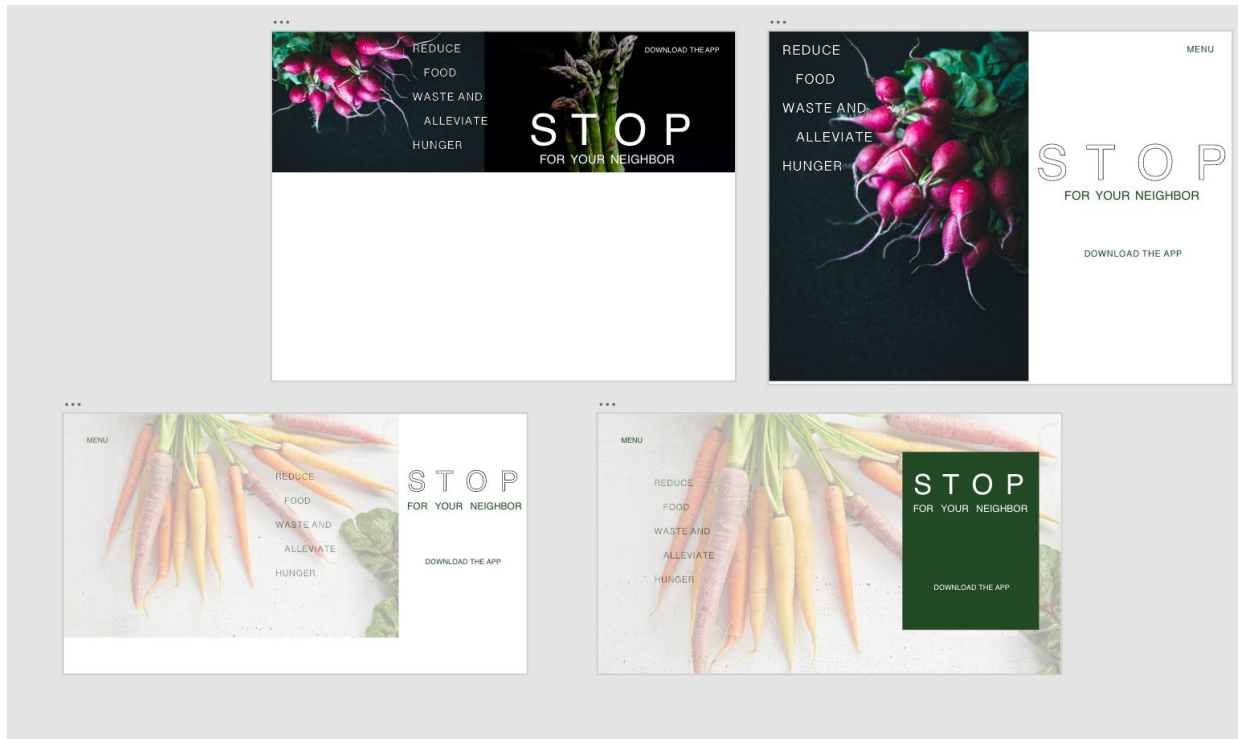
Google

Competitive audit

One of the non-profits I researched to learn more about food waste statistics and how they were being presented on their websites
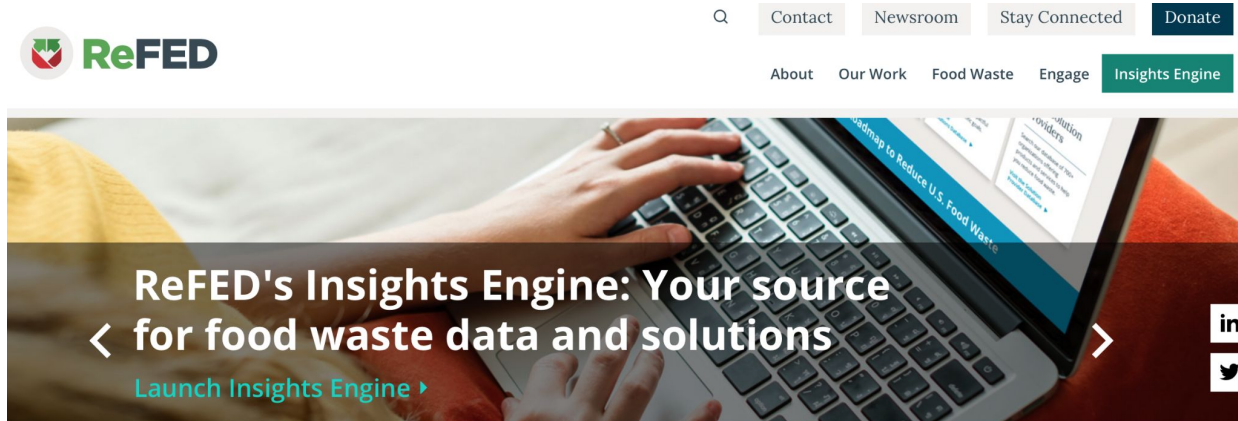
Ideation

The main ideation exercise I used was 'How Might We'. In this instance, I asked myself 'How might we build features into a website that will help generate downloads and using the app? Here I iterated ideas in Adobe XD.

Google

Starting the design

- Digital wireframes
- Low-fidelity prototype
- Usability studies

Google

Digital wireframes

I began this project by creating the mobile app first. This app was later highlighted in the website. I created digital wireframes for the user flow in the mobile app.

This app is designed to work with existing logistics software

S T O P

FOR YOUR NEIGHBOR

LOGIN

LOGISTICS SOFTWARE

Encourages use of the app

S E E

THE IMPACT

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Low-fidelity prototype

The user flow is designed so that when a truck dispatcher logs in to the app, the app receives access to information from their existing software, and is therefore loaded with the produce delivery route information.
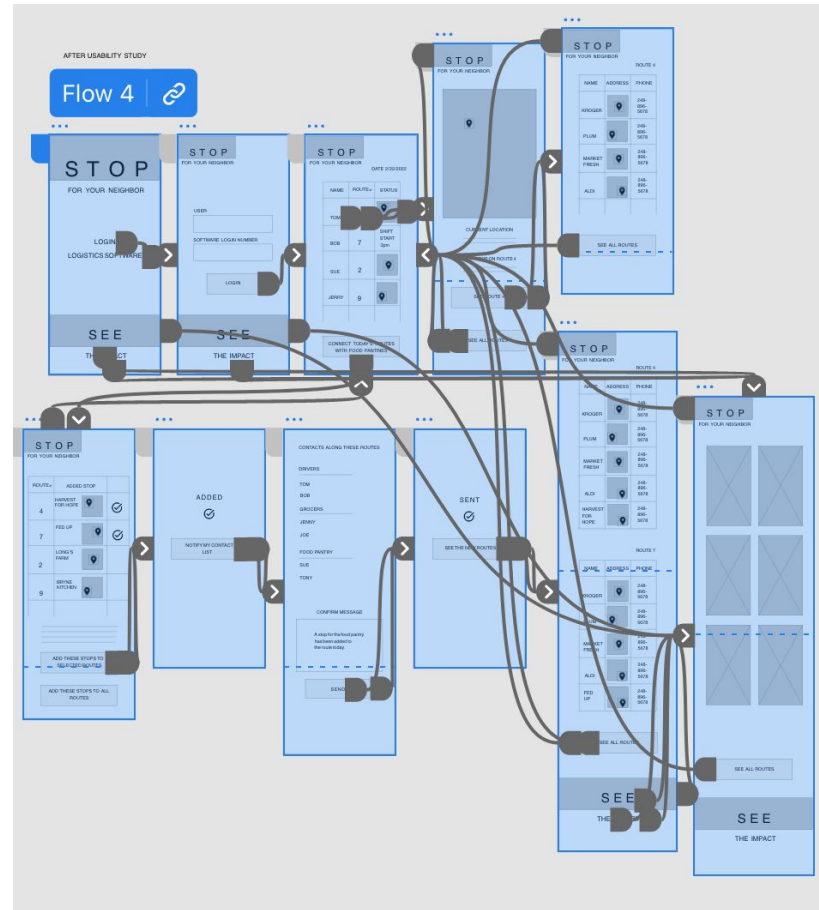
Usability study: parameters

Study type:

Unmoderated usability study

Location:

United States, remote

Participants:

4 participants

Length:

30-60 minutes

Google

Usability study: findings

Insert a one to two sentence introduction to the findings shared below.

1

Finding

The first finding from the usability study was that because the STOP button was always visible in the corner it can take the user backwards unexpectedly

2

Finding

The SEE page is at the end of the app, and users may be unsure of where to move next.

3

Finding

There are potential add-ons a user might enjoy having, such as notifying the food pantry in advance and traffic notices

Google

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

Mockups

Before the usability study there were two options to select food pantries. This was turned into one option and an accompanying explanation.
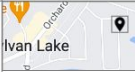

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Mockups

Before the usability study the contact list was given only one message, after the usability study I added tailored messages, that were still pre-written and ready to be sent out for coordinating the additional stop.

CONTACTS ALONG THESE ROUTES

DRIVERS

TOM

BOB

GROCERS

JENNY

JOE

FOOD PANTRY

SUE

TONY

CONFIRM MESSAGE

A stop for the food pantry has been added to the route today.

SEND

CONTACTS ALONG THESE ROUTES

DRIVERS

TOM

BOB

CONFIRM MESSAGE

A produce delivery for the food pantry has been added to the route today

Wait for the grocers to re-load your truck with their older produce after delivery

GROCERS

JENNY

JOE

CONFIRM MESSAGE

A produce delivery for the food pantry has been added to the route today

Set aside the produce that you are almost ready to compost, but is still good

FOOD PANTRY

SUE

TONY

oogle

Mockups

FOR   YOUR   NEIGHBOR

On days scheduled to make produce deliveries

Stop for your Neighbor works in conjunction with your current existing logistics software
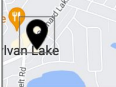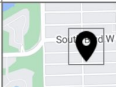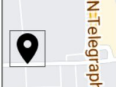
LOG IN

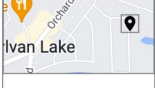LOGISTICS SOFTWARE

SEE

THE   IMPACT

FOR   YOUR   NEIGHBOR
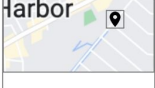
DATE 2/22/2022

NAME	ROUTE #	STATUS
TOM	4	
BOB	7	SHIFT START 3pm
SUE	2	
JERRY	9	

CONNECT TODAY'S ROUTES WITH FOOD PANTRIES

FOR   YOUR   NEIGHBOR

ROUTE #	ADDED STOP	
4	Ivan Lake Harvest for Hope 8910 Maxwell Rd Eastwick MO, 56789	⊘ 0.4 miles from this route
7	Harbor Fed Up 1234 Marley Rd Sylvan Lake MO, 56789	⊘ 0.2 miles from this route

We've calculated the most time efficient way to reduce food waste in your community while helping others eat better

Donating your drivers time will count as a tax deduction
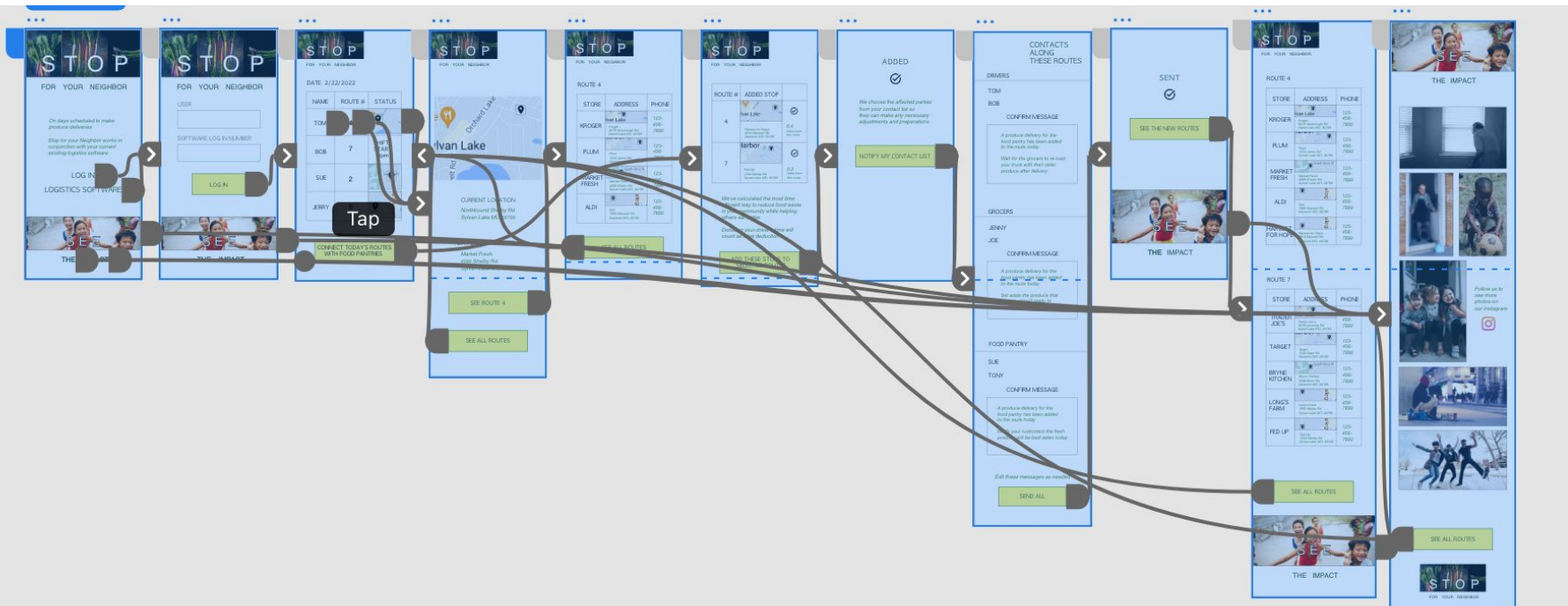
ADD THESE STOPS TO SELECTED ROUTES

ADDED

⊘

We choose the affected parties from your contact list so they can make any necessary adjustments and preparations

NOTIFY MY CONTACT LIST

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High-fidelity prototype

Accessibility considerations

1

Learning how to implement this technology with a screen reader when it goes to development

2

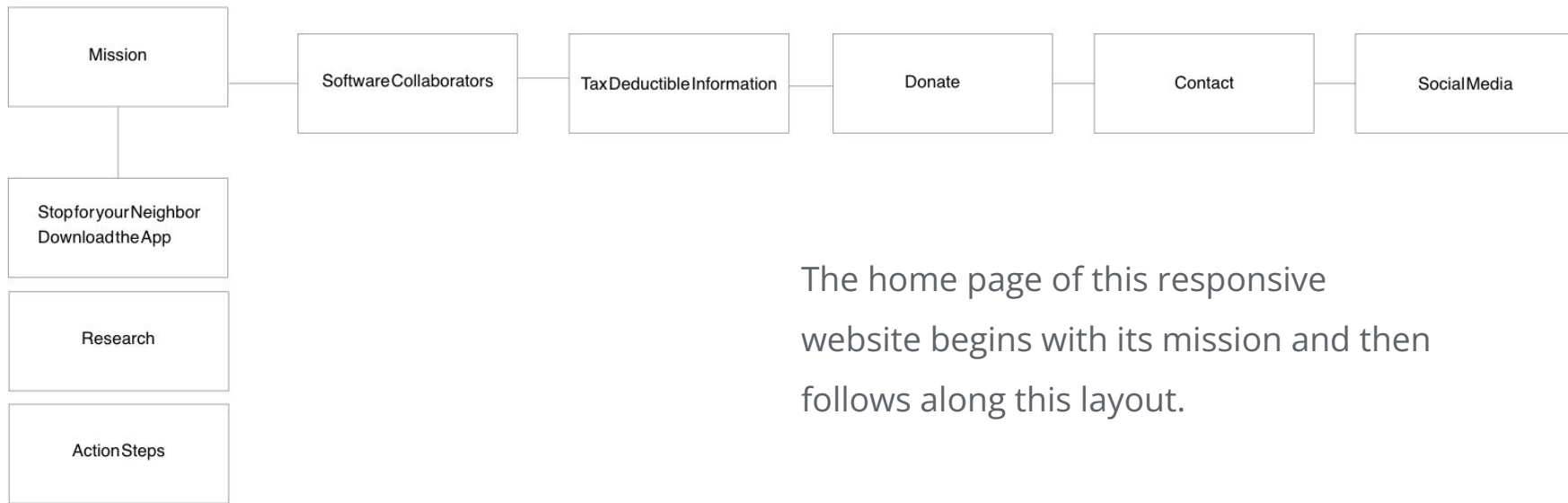Using alt text for all images

3

Using rem measurements for font so that font-size can be scaled on any device

Google

Responsive Design

- Information architecture
- Responsive design

Google

Sitemap

SITE ARCHITECTURE

The home page of this responsive website begins with its mission and then follows along this layout.

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Responsive designs

The home page of this responsive website beginning with its mission and research statistics.

Going forward

- Takeaways
- Next steps

Google

Takeaways

Impact:

I believe this app could make a real impact on the world. I was inspired reading about agency, access, and action and wanted to create an app that would meet the user where they already were and utilize an existing system.

What I learned:

I learned with some brainstorming and determination you can create real solutions and change in your community.

Next steps

1

I would be interested to speak with a software engineer about the feasibility of this app working with existing software.

2

Further expand the website offerings and information

3

Learn more about accessibility steps

Google

Let's connect!

Thank you!

Contact me at elizabeth.szczesny@yahoo.com

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