Recycle it! Design project for social good

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Project overview

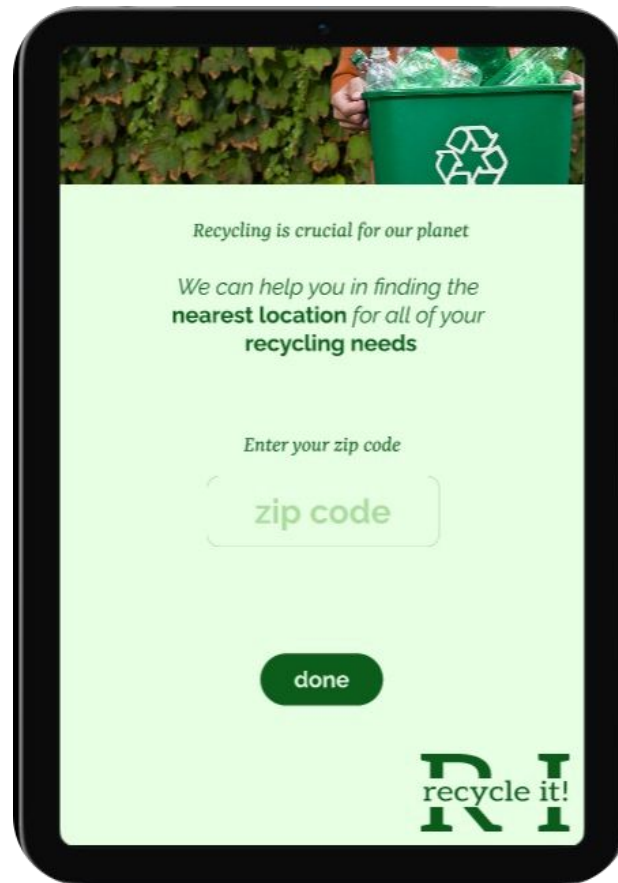**The product:**

"Recycle it!" is a user-friendly app and website tailored for environmentally-conscious individuals. Whether you're new to an area or simply looking to reduce your carbon footprint, Recycle it! provides a convenient solution by instantly locating the nearest recycling points. Seamlessly integrating into users daily lives, this platform aims to promote sustainability by making recycling more accessible and effortless.

Project duration:

February 2024

Recycling is crucial for our planet

We can help you in finding the **nearest location** for all of your **recycling needs**

Enter your zip code

zip code

done

recycle it!

Google

Project overview

The problem:

Available online platforms are hard to use, as they are either tailored for European users, or fail to identify recycling facilities within a given locality.

The goal:

Design the Recycle it! app and website with a focus on user-friendliness, ensuring straightforward navigation for users. Enable fast search and location of recycling facilities to meet their needs.

Project overview

My role:

UX Designer leading the Recycle it! design.

Responsibilities:

Conducting interviews, paper and digital wireframing, low and high-fidelity prototyping, conducting usability studies, accounting for accessibility, iterating on designs.

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Understanding the user

- User research
- Personas
- Problem statements
- User journey maps

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User research: summary

I engaged in online interviews with potential platform users to gain insights, which were then turned into empathy maps to deepen understanding of the target users and their needs. Through this process, I found that numerous target users wonder about the nearest recycling facilities and the range of services they provide. However, existing apps and websites are largely inadequate in fulfilling this need. They are either tailored for European audiences, or struggle to pinpoint obvious locations. Recycle it! has the opportunity to enhance the overall customer experience and foster customer loyalty.

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User research: pain points

1

Recently moved to an area

After moving, people begin to establish their daily routines anew and often struggle to locate the nearest recycling facilities.

2

Local stores offer limited recycling services

Local stores such as Target, Harris Teeter, Publix, Kroger etc, do not accept large volumes of recycled waste, nor do they accept the variety of materials accepted in recycling facilities.

3

Unable to find a one-stop online platform to locate recycling facilities

After checking, they couldn't find any website or app, except of Google maps, that could help with all of their needs.

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Persona: **Andrew**

Problem statement:

Andrew recently moved to a rapidly developing city and is looking for a recycling facility for his family's needs.

"My family sorts waste, and we're looking for a facility that helps to recycle them. Let's make a difference in reducing our impact on the environment!"

Andrew

Age: 37
Education: Bachelor in Communication
Hometown: Charlotte, NC
Family: Married, 3 kids
Occupation: Insurance agent

Goals
- Find a resource to locate a convenient recycling facility for all his family's needs

Frustrations
- Frustrated about not finding the resource to locate the nearest recycling facility

Andrew is a 37-old insurance agent who recently moved to a rapidly developing city. As the head of the household, he has a lot of things to set up anew after moving. He wants a platform, that helps him find the nearest locations for his family's recycling needs.

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User journey map

Andrew has a goal to find a recycling facility where he can drop off different kinds of waste.

Persona: Andrew

Goal: Find a resource to locate a convenient recycling facility for all his family's needs.

ACTION	Choose right resource	Enter a zip code	Select type of waste to recycle	Get the list of nearby facilities	Find the facility's map and website
TASK LIST	Tasks A. Search for recycling facilities nearby B. Choose the website that quickly displays search results and the types of recycling waste they accept	Tasks A. Enter your zip code	Tasks A. Select a type or types of recycling waste from 6 suggested	Tasks A. Check out the list of suggested recycling facilities	Tasks A. Find the Expand button B. Open the map how to get to the facility C. Open the facility's website
FEELING ADJECTIVE	• Anticipated • Excited	• Anticipated	• Nervous about picking the right type	• Glad • Satisfied	• Relieved • Eager to share results with family
IMPROVEMENT OPPORTUNITIES	• Create a responsive website Recycle it! for locating a convenient recycling facility	• Add an interactive element to the input field	• Add interactive elements to pictures that shows the picture's title	• Add the Expand button	• Add additional user flows

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Starting the design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies

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Paper wireframes

I sketched out paper
wireframes for each screen
in my app, keeping the user
pain points in mind.

Here are the home page
wireframe variations. I tried
to keep it as simple as
possible.

Google
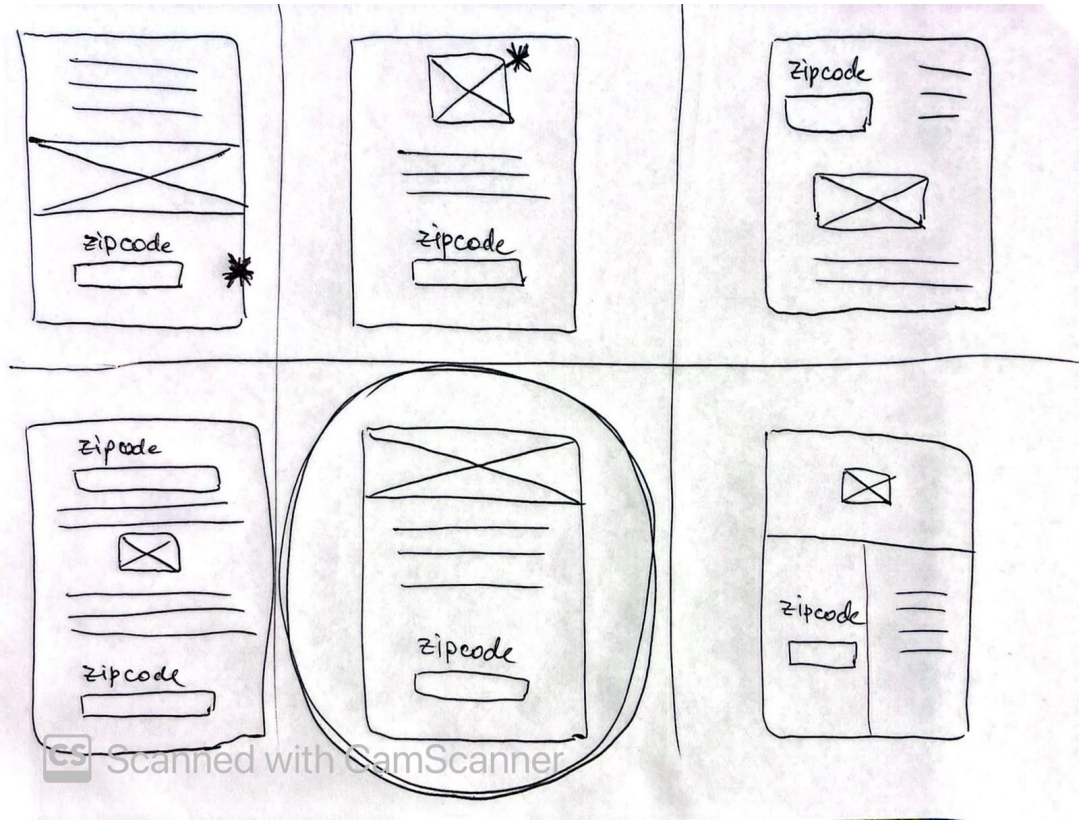
Digital wireframes

These are the first screens
of the main user flow,
where the user can enter
their zip code and select
type of waste they need to
recycle.

Homepage
Desktop
Version

Select type of
waste screen
Desktop
Version

Recycling is crucial for our planet
We can help you in finding the nearest location for all of your recycling needs

Enter your zip code

done

←

Choose one or more

e-waste

plastic

metal

glass

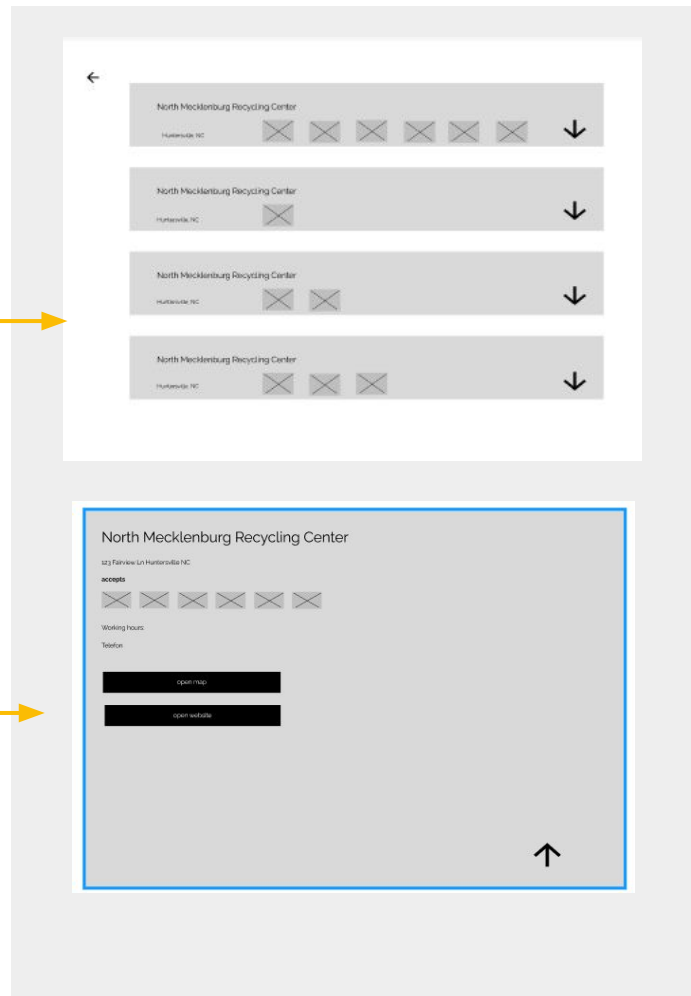paper

organic

done

Google

Digital wireframes

The screen above allows users to check out the list of nearest recycling locations that accept the type of waste they selected.

The screen below has the detailed information about the specific recycling facility.

Near each location users can see types of waste it accepts

After clicking the arrow users can see the facility's detailed information, its map and website

North Mecklenburg Recycling Center
Huntersville NC

North Mecklenburg Recycling Center
Huntersville NC

North Mecklenburg Recycling Center
Huntersville NC

North Mecklenburg Recycling Center
Huntersville NC

North Mecklenburg Recycling Center

123 Fairview Ln Huntersville NC

accepts

Working hours

Telefon

open map

open website

Google

Low-fidelity prototype

The screens on the right complete the main user flow for the mobile version.

View **Recycle it! low-fidelity prototype**
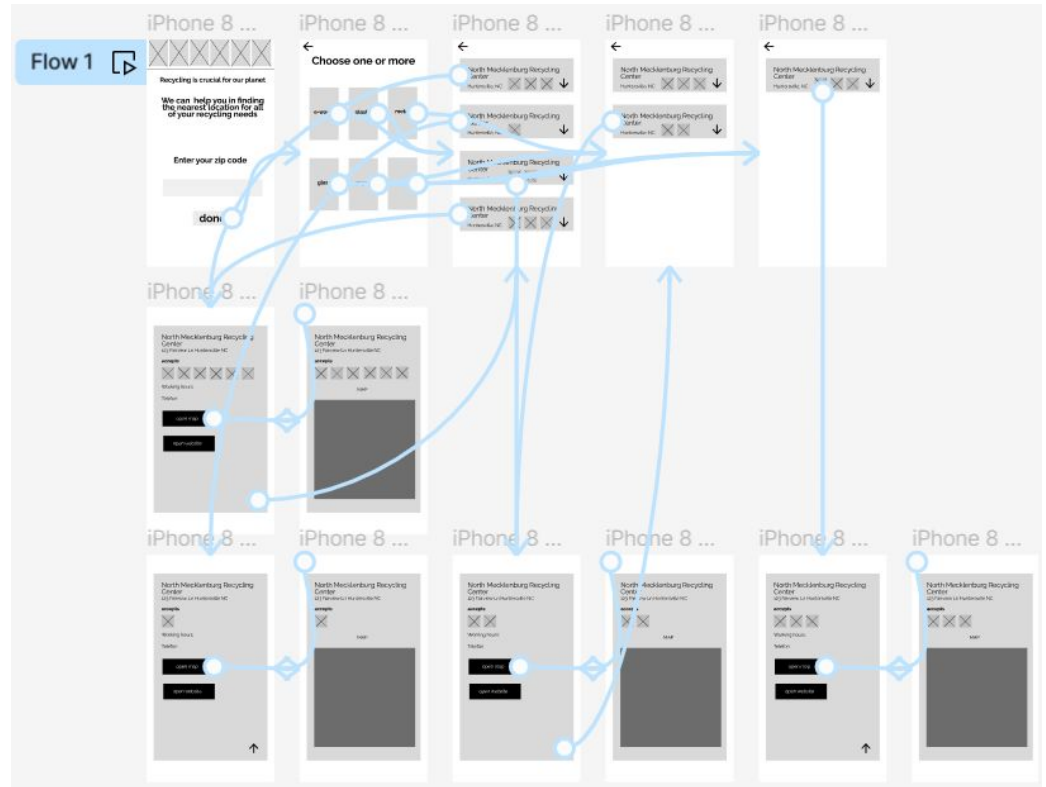
Usability study: findings

After conducting the usability study I found two main areas to improve.

Round 1 findings

1. Users want to change some buttons

2. Users want a more intuitive way to access the recycling facilities details

Round 2 findings

1. The ability to select several types of waste can confuse users

Refining the design

- Mockups
- High-fidelity prototype
- Accessibility

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Mockups

I changed the screen where users select the type of waste by providing an option to choose only one item. This allows for less confusion.

I also added pictures and interactive elements for them.

Choose one or more

e-waste   plastic   metal

glass   paper   organic

done

After usability study

As the cursor approaches, the selected frame becomes highlighted. The name of the waste appears inside the frame.

Please select an item you're looking to dispose of:

plastic

recycle it!

Google
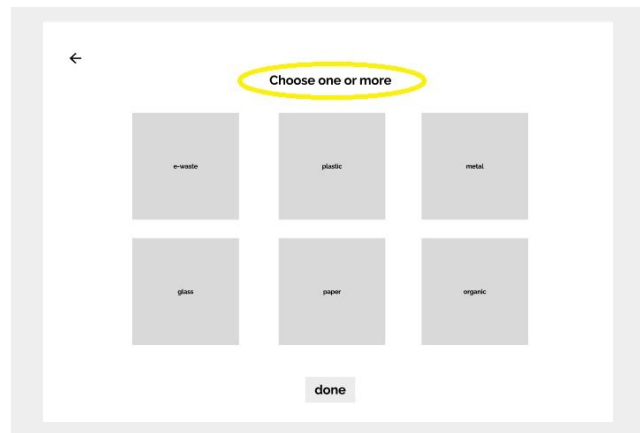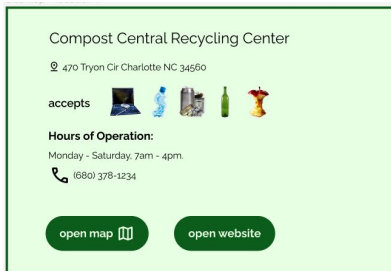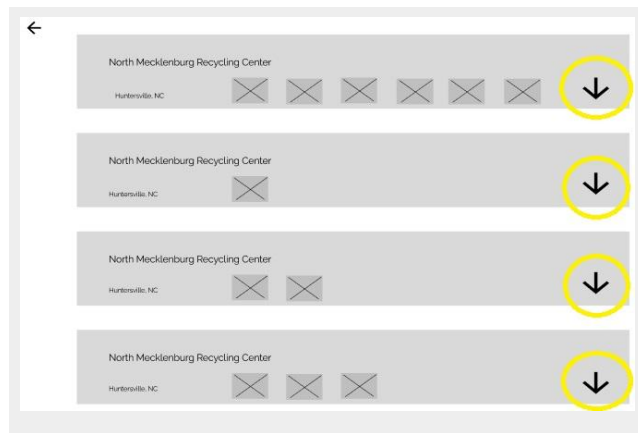
Mockups

I updated the screen where users gets the list of all nearest recycling facilities. The down arrow was not perceived as opening details, so I replaced it with the expand button.
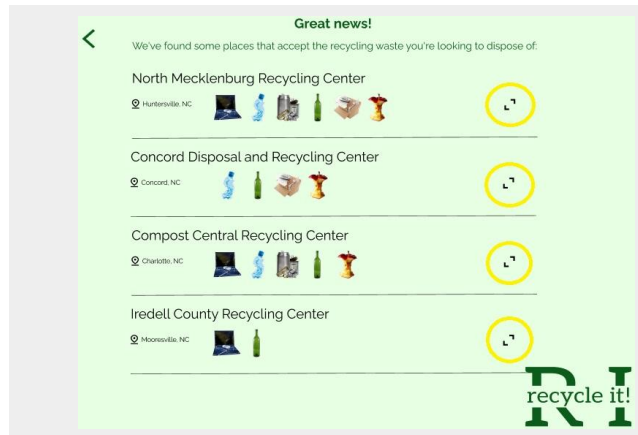
Before usability study

After usability study

By clicking the expand button user gets the detailed information about the recycling facility

Compost Central Recycling Center
470 Tryon Cir Charlotte NC 34560

accepts

Hours of Operation:
Monday - Saturday, 7am - 4pm.
(680) 378-1234

open map   open website
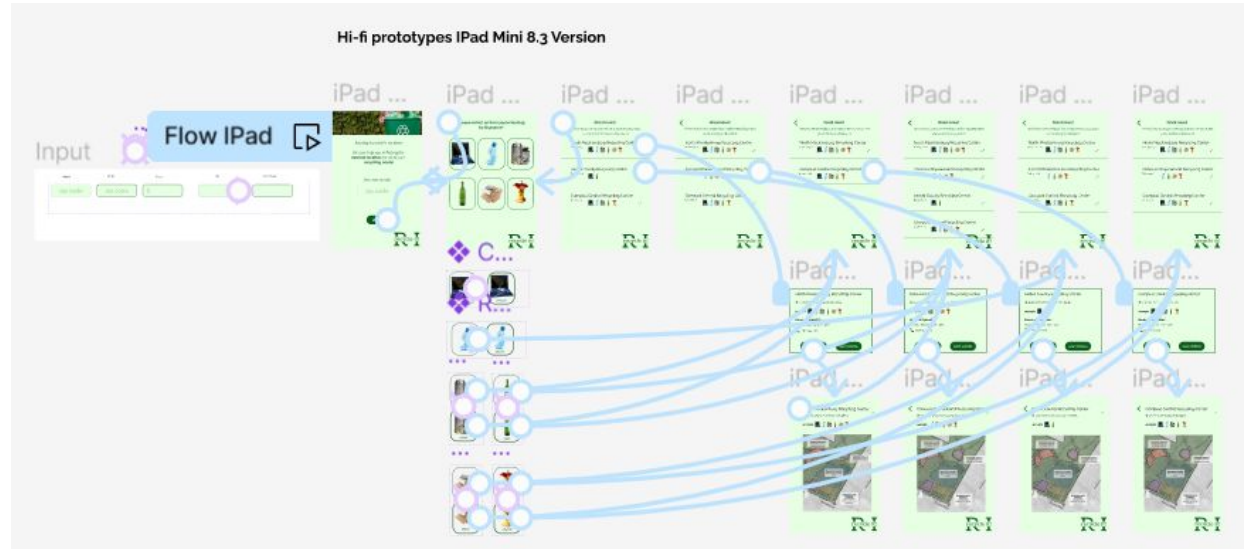
Mockups: main user flow (mobile version)
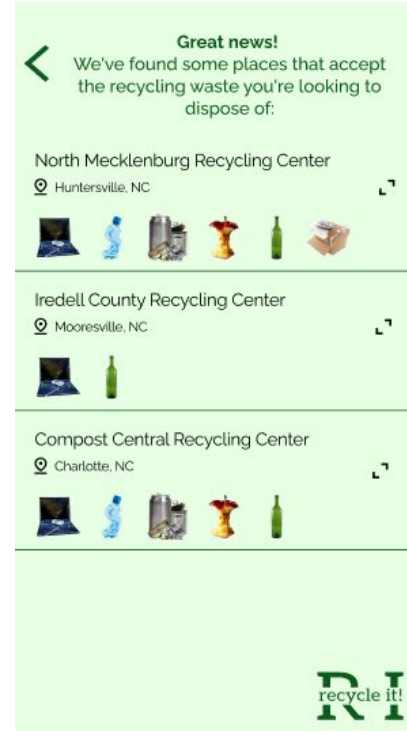
High-fidelity prototype

View [Recycle it! hi-fi prototype Ipad](#) here

Hi-fi prototypes IPad Mini 8.3 Version

Accessibility considerations

1

Colors

The Recycle it! app and website have color combinations with a contrast ratio of 7.73:1 (HEX #E7FFE3 and HEX #0C5C1B) according to WCAG (Web Content Accessibility Guidelines)

2

Consistency

Consistent design themes, including heading styles,font choices, icons, buttons and layouts help users predict where page elements can be found and in helping them navigate. Users with cognitive impairments may be unable to recognize items if they are not consistent in appearance.

3

Interactive elements

Interactive elements like inputs, option and expand buttons help highlight selected areas and use the product more intuitively and delightfully.

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Going forward

- Takeaways
- Next steps

Google

Takeaways

Impact:

Our target users shared that the design was intuitive and delightful to navigate through, more engaging with the images, and demonstrated a clear visual hierarchy.

What I learned:

I learned that even a small design change can have a huge impact on the user experience. The most important takeaway for me is to always focus on the real needs of the user when coming up with design ideas and solutions.

Google

Next steps

1

Conduct follow-up usability testing on the website

2

Identify any additional areas of need and ideate on new features like showing a distance from a recycling facility to user's location

Google

Let's connect!

Thank you for reviewing my work on the Recycle it app and website!

If you'd like to see more, or would like to get in touch, my contact information is provided below:

Email: poliantseva.irina@gmail.com
LinkedIn: https://www.linkedin.com/in/irina-poliantseva/