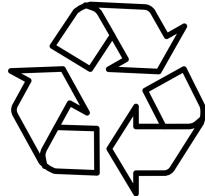


Track-My-Waste

Contextual Design Results



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CPSC 6140: Human-Computer Interaction

Document 2

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Document Purpose

This document reports the process of ideation for our product--moving from models of people's lives to a vision of the tasks that our end-product hopes to support, product concepts that support the visioned tasks, and fictitious personas and scenarios that entail the use of our end-product. All of the models that resulted from ideation are presented and discussed in this document.

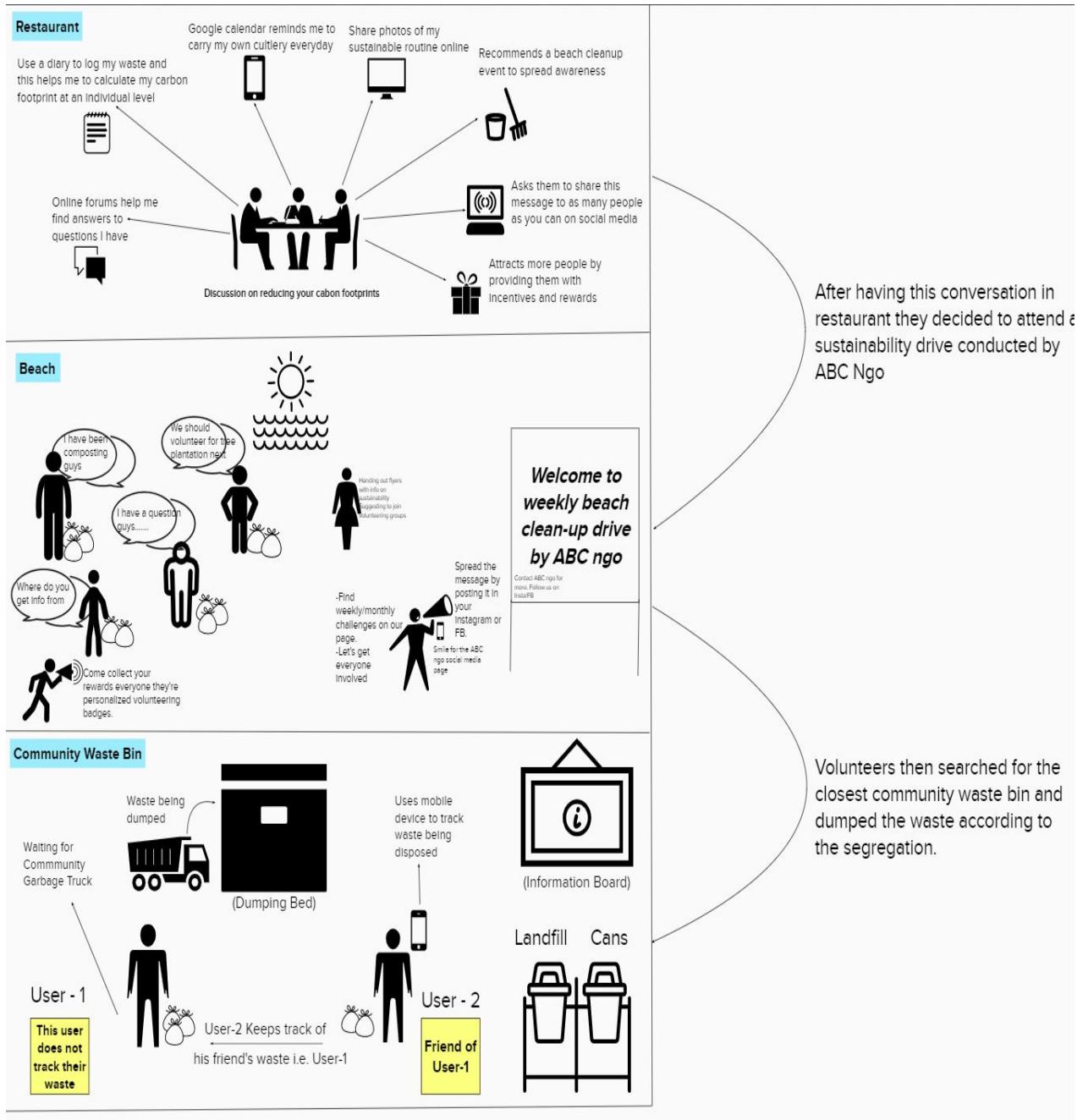
Executive Summary

By the end of ideation, we were able to come up with three individual visions, one consolidated vision, nine product concepts (five of which underwent a cool drilldown), five personas, five scenarios, and a short story showing how each persona goes through the scenarios. The outcome was a holistic vision of the lifestyle that Track-My-Waste seeks to promote.

The three visions we made include hanging out with friends at a restaurant and discussing how to be sustainable, volunteering at a beach cleanup, and segregating waste as it's being thrown out. We were able to tie together the three visions into a single vision of someone discussing sustainability with their friends, going out to a beach cleanup with those friends, and then segregating the waste afterward. The product concepts we came up with serve to help people become and enjoy being sustainable, and they include a waste logging system, a recommendation system, a social wall, an event manager, a community leaderboard, a new feed, a donation page, a reminder system, and a rewards shop. The five personas we came up with embody the key demographics we're aiming Track-My-Waste towards—sustainability enthusiasts, people learning about sustainability, people who know next to nothing about sustainability, people who make efforts in their own life to be sustainable, and people who try to get others to be sustainable. Each of the personas also have a scenario that they walk through—the sustainability enthusiast goes out to the community recycling bin, the moderately sustainable person learns new ways to be sustainable, the individually sustainable person practices sustainability at a restaurant, and the influentially sustainable person hosts a community event. How all of the personas and their scenarios contribute to the overall vision of Track-My-Waste is discussed in the reflection.

Consolidated Vision and Product Concepts

Consolidated Vision



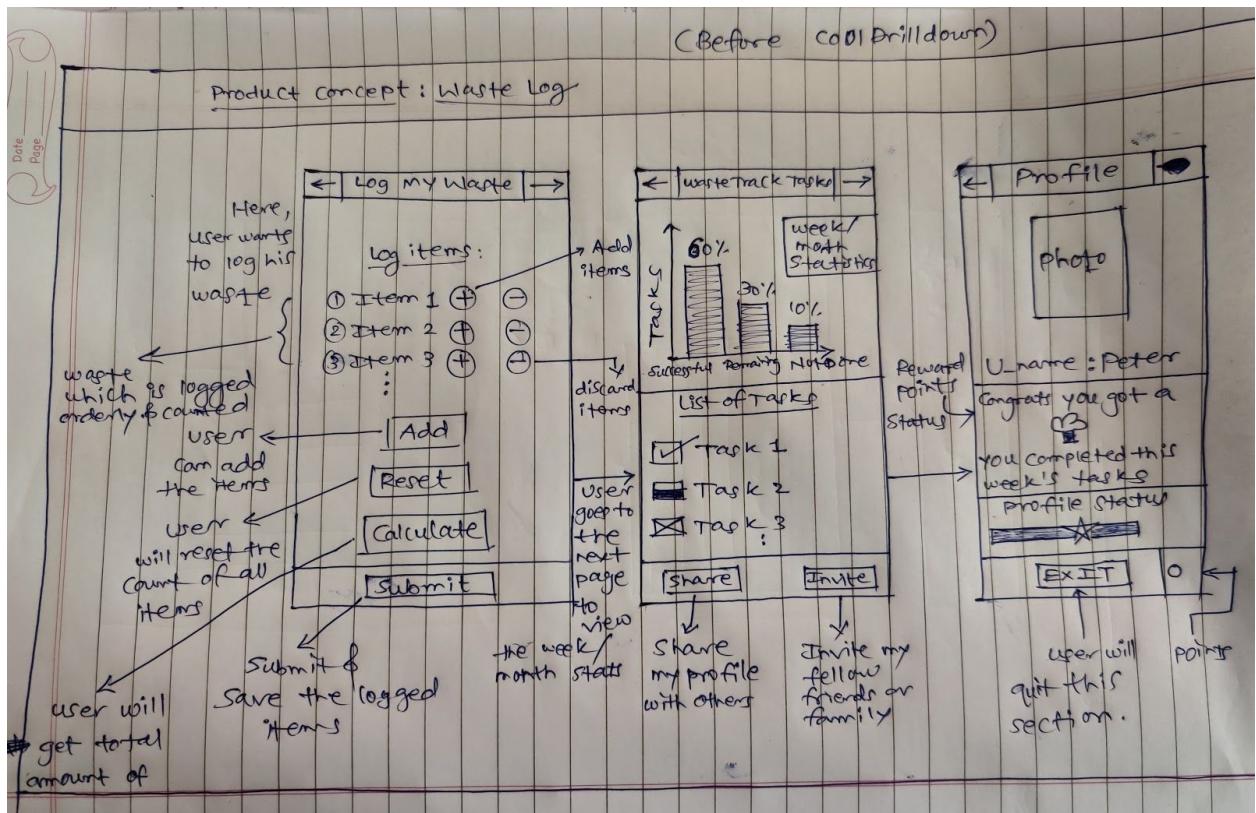
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Product Concepts

Concept 1: Waste Log [Chaitanya Mundle]

This feature is essentially MyFitnessPal but for sustainability. If a user throws out waste, they'll log it. Anything that necessitates waste will be logged. As a benefit of logging waste, they'll receive analytics on their waste, recommendations for new ways to cut down on their waste, and they'll receive reward points. With this, they will also get information about which sustainable tasks they can perform and suggestions for things to log as provided by the recommendation system concept. The statistics shown here should depend on the user's selection of weekly or monthly stats and the users will always be notified using the application's notification system to log their waste at regular intervals. The application will get the input of all the waste which is logged in by the user and then after analysis the statistics will be provided.

Before Cool drill down



Accomplishment

- This product concept does follow anytime and anywhere access as this concept is imbibed within the mobile application which makes it easier to access from anywhere and anytime according to internet and user's availability. Also, this makes the whole concept easier as the user need not manually log the waste.
- Even if the application overall can be used in dead time but, this specific product concept wherein users log their waste cannot be completed in dead time as to log the waste one should be active enough to throw the waste and then keep a track of it.
- As we extensively concentrate on the mobile intensive application to make the whole process a lot more smooth, logging of waste does not support device switching as it would be boring for the user to log their waste from their PC or even via their laptop too.
- The user after logging their waste is acknowledged with proper statistics on how much amount of waste was logged and also, the list of tasks which are yet to be done for this week/month. Also, the product concept provides a calculation feature where users can get the total amount of waste segregated such as landfills, bottles, organic, papers. This response provided via the product concept to the user would be prompt so that the user would be aware when needed.

Connection

- This product concept allows the user to connect with other users where the users can view the profiles and how other people log their waste using the application which can motivate them more to be sustainable. The feature to share their user profile mainly enables the other users to view the profile too.
- The users would mainly want to share images about how they logged their waste by using the application and then they would have an option to share their profile too so that they can also see how other users are being sustainable and what scope of improvement would be for the users.
- Technically, users are not supposed to do the task together according to the product concept as it is an individual task and the users if work in groups are prone to error where one user can log waste of himself and his friend too and earn the reward points which will be manipulating. Hence, the product concept does not support doing this task together.
- The principle of involving other users is supported by the product concept wherein the existing users can invite people via the application who are currently not involved in any such activities and make them aware about the concept.

Identity

- The major identities are specifically targeted and covered using this product concept where an individually sustainable person, moderately sustainable person use the application mostly and also, users who are influentially sustainable are inspired by this concept too.
- As such, this product concept does not undermine or demean most of the major aspects of identities as the main aim of this product concept is to make the users log their waste regularly and in a disciplined manner. But the person who is not at all sustainable will never use this product concept.
- No, the waste log concept does not help people adopting, reinforcing their identity, but the users can share or promote themselves just by sharing their profile.
- Yes, this product concept is successful in helping the user celebrate his achievements and get motivated to achieve more by the feature which gives reward points in the form of tree icon and also reflects the profile status which should make the user happy.

Sensation

- As our application has a minimalistic interface, the users are captivated to use the application and a clean interface with reward points and prompt responsiveness will get the users more interested in using the application.
- Even if the application would not have an embellished interface but definitely it would have that "wow" factor as the people would never imagine that logging waste would be so easier rather than interface which is attractive but complex to understand.
- The product concept which we are talking about would be basic and easy to understand in terms of performing the task but, the thing which makes it fun is the visualizations of statistics and the tree and star icons for getting rewards and displaying the profile status respectively.
- The work on aesthetics of our application is still yet to be done as our prime focus would be development of functionalities and once that's done the aesthetics would be easier to design.

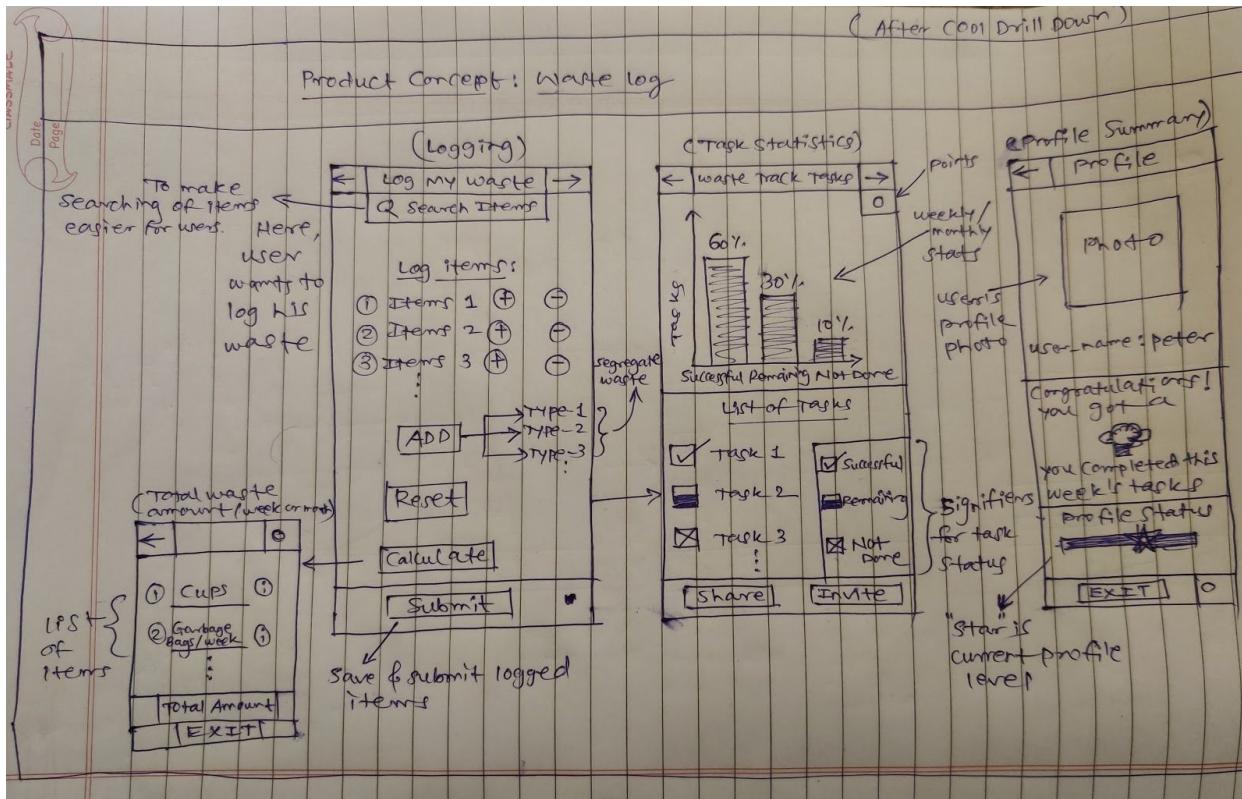
Direct into Action

- All of the intent or functionalities required for this product concept like statistics, invitation, search bar and sharing profile except the current profile status and reward points is available at one place.
- Yes, the product concept allows the user to transition between the steps and actions using the forward and back arrow to easily switch between the screens too, to see the reward points and profile status.
- The aim of this product concept is to create a design which is user-specific and the only thing the user has to do is log the waste and then the concept will acknowledge the user with all the necessary information.
- No, the application which we are designing is not tailored enough to learn the things without asking because the product concept is fully based on the user's input.
- All the major hassles like switching from one screen to another, inviting people and sharing profile is eliminated seamlessly allowing the user to perform his tasks with an ease and also, the search bar in the interface will help the user search for the products which he wants to log.

The learning delta

- The user does not require any specific training for this product concept as it is an interactive system where users can understand what exactly is happening as they are using the application which adapts the most general pattern for designing the interface.
- Yes, all the complexities related to waste logging are eliminated.
- The application is successful enough to nudge the users in the right direction via buttons and the user can phase between the application seamlessly and the user-control is maintained.

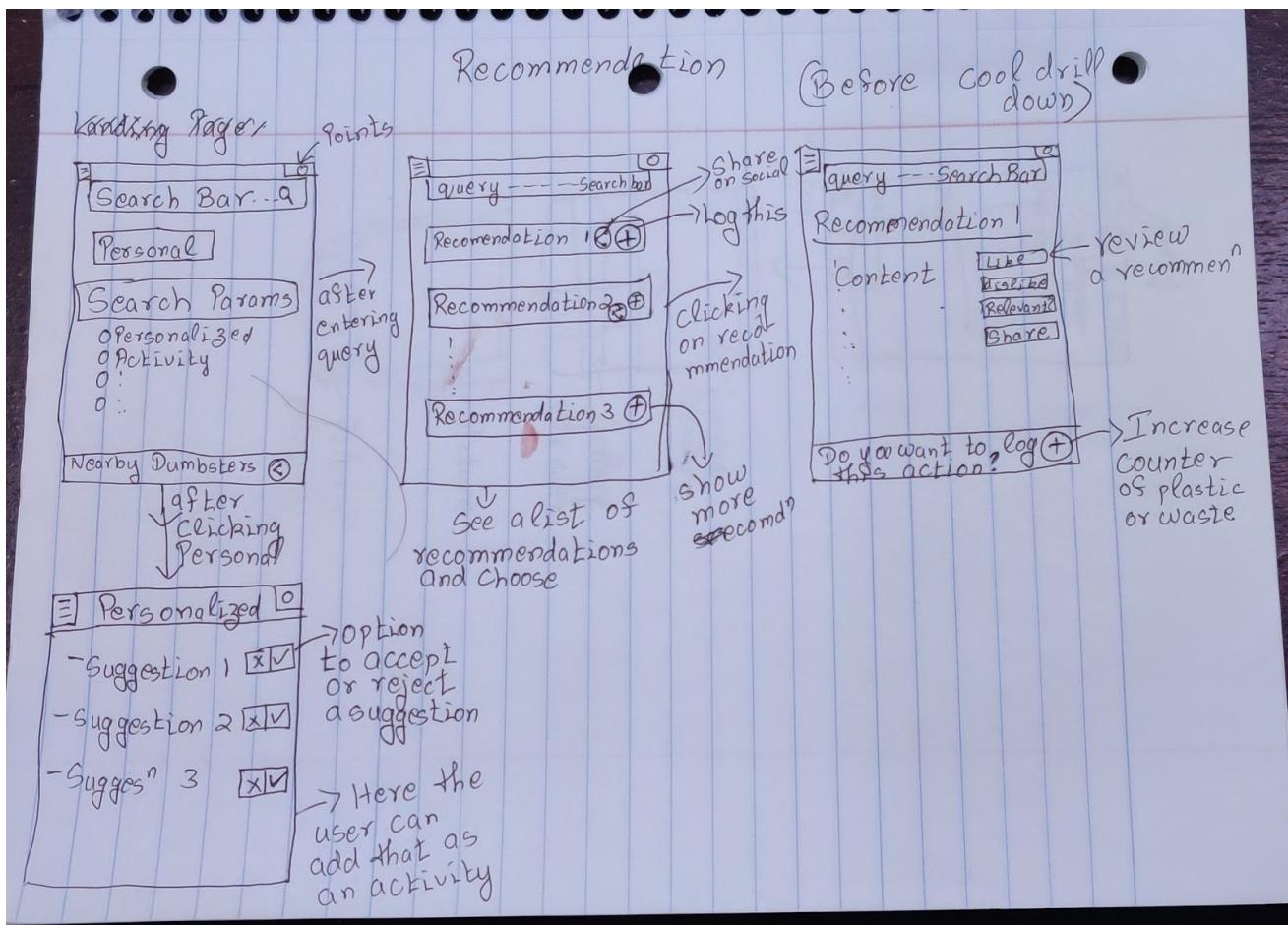
After Cool drill down



Concept 2: Recommendation System [Dhananjay Nikam]

The recommendation system will provide personalized recommendations for the user—recommendations for outings, events, stores, and ways to be sustainable. It'll nudge the user into a more sustainable lifestyle over time. The recommendation system gauges which things to recommend based on a survey. When the user first creates an account with Track-My-Waste, they'll take the survey. The survey's purpose is to get a holistic view of how sustainable the user is. It'll be used to provide the users with recommendations for how to be sustainable that won't overwhelm them. The recommendations include suggestions for various activities and articles which the user can read to get a better understanding of sustainability. Multiple recommendations are shown to the user. The user can review the recommendation and even share it on the wall or social media. If the user follows these recommendations the user can directly log their waste from the recommendations page.

Before Cool Drilldown



Accomplishment

- The concept does follow the anytime, anywhere access principles. The product concept being a part of a mobile application makes it adhere to the anytime, anywhere principles. The recommendation product concept is made available so that the user can check for recommendations and read more about it at their own ease.
- As the concept is simple and similar to searching for a query on Google it makes the process easier for the user and can be done in dead time. Let it be reading articles or finding better activities from the recommendation system, the functionality can be utilised in the dead time.
- The recommendation does not support device switching as the main intention is to make a mobile application. The app is visioned to be solely used on a mobile device, The idea can be extended to be used as a desktop site as well.
- Yes the right information is provided when needed. The user enters a query to get information and multiple choices are provided to know more about it. The user even gets an option to get personalized recommendations.

Connection

- The product concept itself does not let the user connect with others. The feature to share their recommendations and actions enables the user to connect with other users. The feature to share the recommendation on their wall in the application triggers connection between users where they can comment on the post and connect with each other
- The user would want to share interesting articles they found from their query and the new activities. Yes they can share these articles and activities on their personal social media and the application user wall.
- Searching for a query and finding recommendations is a personal task and would vary for each user, so the users cannot do the task together.
- Yes, others who are usually not involved can be involved by recommending new interesting tasks and articles related to their preferences to get them interested in the application.

Identity

- All the core identities are targeted by the concept. The recommendation concept can be used by every identity for understanding more about sustainability and different activities that they can perform. Can make better functionality for new users and easy activities can be suggested to keep them interested.

- The personalized recommendation aspect does not undermine any identity particularly. The tailored recommendations provided, try to incorporate everyone.
- Yes, the recommendation concept helps people adopt, reinforce and promote their identity. Each user can get a recommendation to improve their knowledge, solve queries and be a better sustainable person.
- There are no celebratory aspects since it is just a query solving or finding activities. But a celebratory aspect can be introduced when the user shares an article or activity or when the user completes reading an article to instil a positive feedback that the user learned something new and is better now.

Sensation

- The app does not have a lot in terms of the aesthetic design, but the end goal is to implement the design in the most interactive and pleasing manner.
- The app doesn't have much in terms of the aesthetic design, but the end goal is to have a simplistic design and the tailored content provided and the ease of use is hoped to wow the user.
- Product concept is pretty plain where the user just enters a query or seeks personalized recommendations, but the feedback animations on completion of an activity or adding the activity to their task list could be made fun.
- We are still focused on the functionality rather than the aesthetic, but we will soon move to the aesthetic design once the functionality is finalized.

Direct into Action

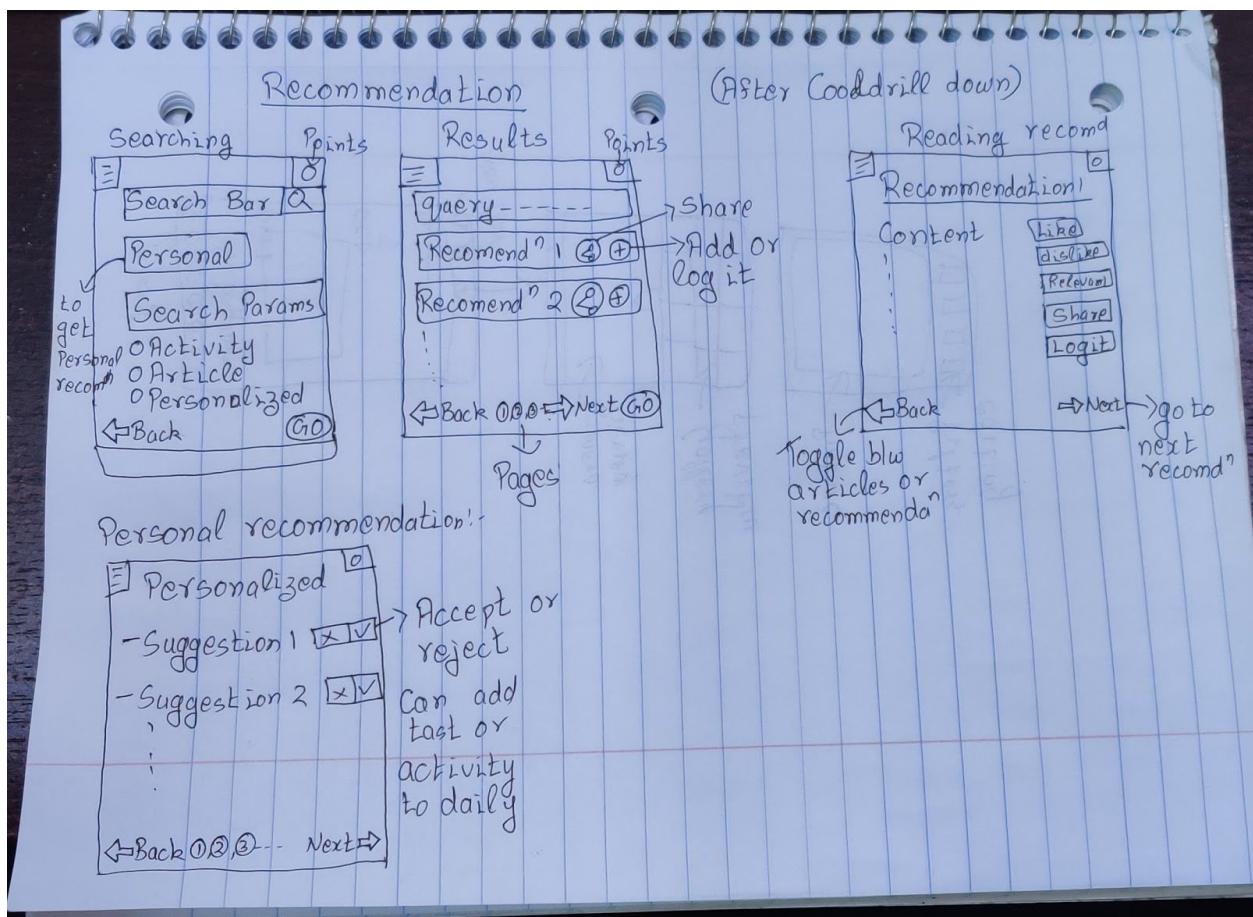
- Yes, the search bar and options to alter query or to get a personalized recommendation are all in the same place.
- Yes, users are able to easily transition between steps and actions, as back buttons are provided to help with the steps. A navigation bar can be added to make it easier to navigate between actions or features.
- The design does think for the user. The fact that the concept provides a tailored recommendation for a user based on their query and expertise, confirms that it thinks for the user.
- The app does learn about the user's behaviour without asking. The recommendation that user chooses and the articles that the user reads and the personalized actions that the user adds to their activity list help the application to learn better about the user.
- All of the hassles related to finding information or solving a query related to sustainability are solved with the recommendation concept. The task is made

easy and tailored for the user to make it hassle free and make it a one stop solution for all sustainability queries.

Learning Delta

- No training is needed. The search bar is similar to many search engines, the user can just use the feature based on their prior knowledge or understanding of the user.
- All the complexity of searching for a solution and solving a query are eliminated. The concept even provides options to share the recommendations making it a one stop solution for everything related to sustainability queries.
- The app does nudge the user in the right direction. The simple indicative buttons and suggestions help the user navigate through the feature smoothly making the user feel in control and moving in the right direction.

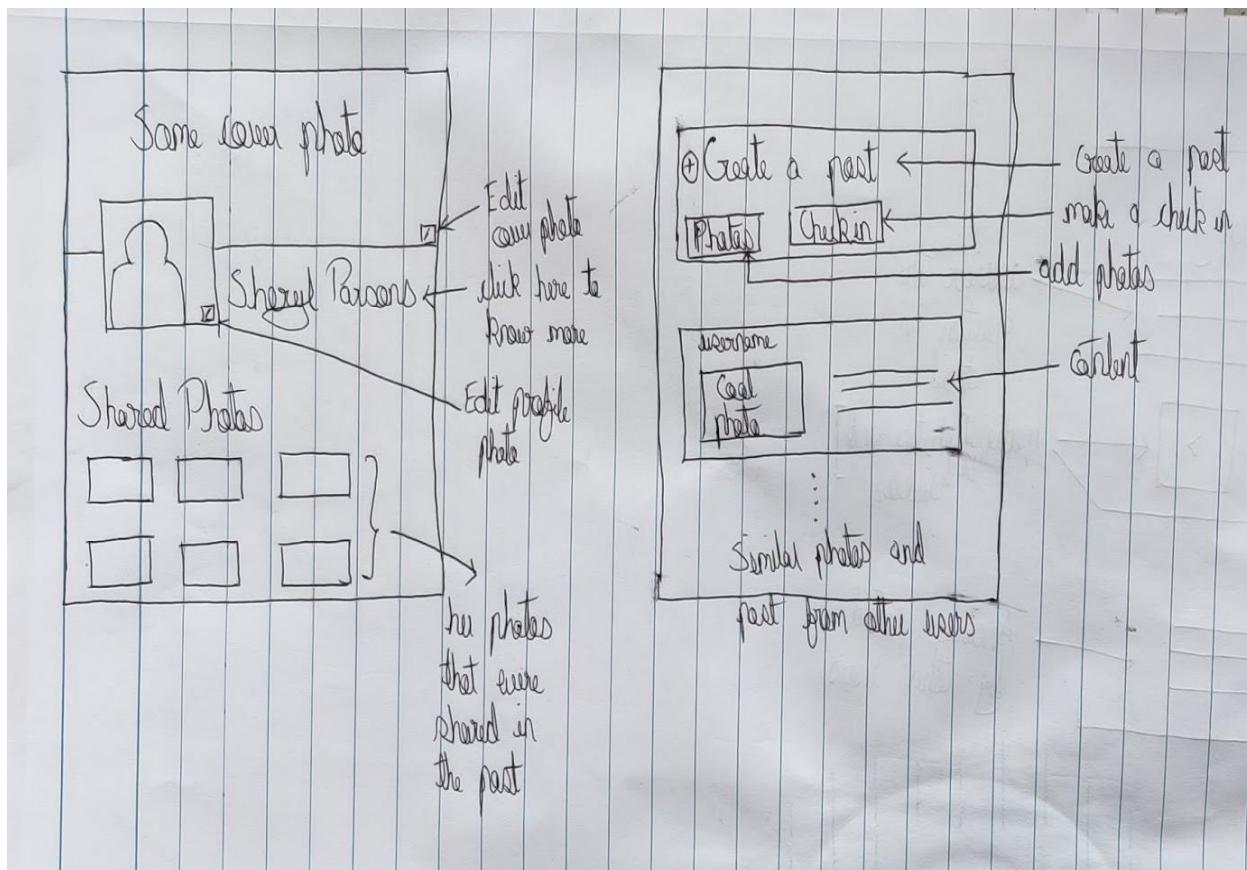
After Cool Drill Down

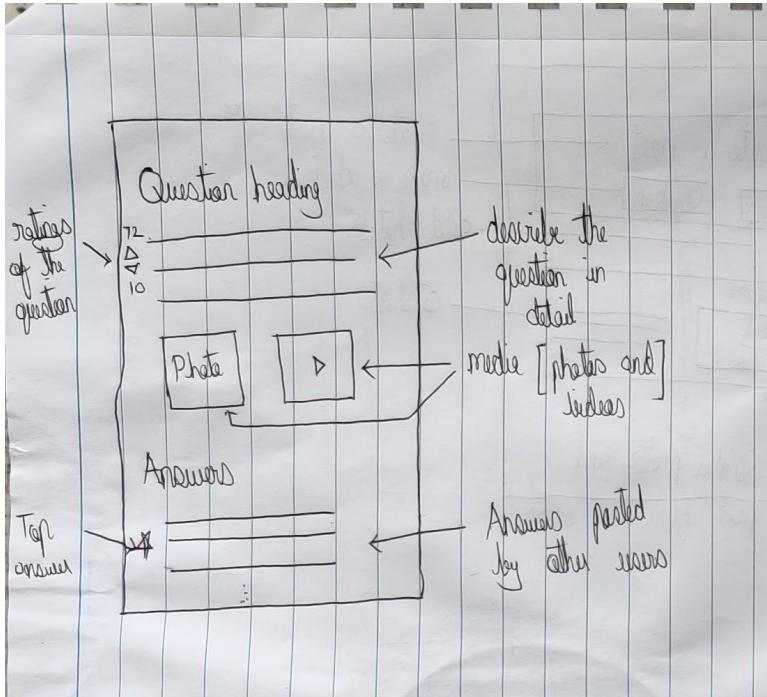


Concept 3: Social Wall and Forum [Parth]

The social wall is basically a Facebook wall but for Track-My-Waste. On it, users can post their plans, their thoughts, pictures, events, and things they find interesting. The wall will let users see their friends' sustainable activities as well. The hope for the wall is to provide a place where people can share their progress in becoming sustainable and provide each other encouragement. Additionally, Track-My-Waste will include a forum. The forum will let people post questions and answers they have. It's also a place for more in-depth discussions on topics. The forum and wall in tandem will help to foster a sense of community on Track-My-Waste.

Before cool drill down





Accomplishment

- The concept adheres to anywhere, anytime access of the features, it requires the mobile device and internet connection with the app installed to access this.
- All the features can be accessed during “dead time”.
- The device does not support switching at the moment for social wall and forum but in its later and updated stages, it can be developed into a webpage.
- The right information is provided when it is needed, the navigation and options are inquisitive.

Connection

- Yes, it does allow users to connect with other users and make friends. They can follow each other and they will be notified if anyone of them updates their status or posts something new.
- The user can share any media they want to (photos and videos) regarding the environment. The users can promote the message of using eco friendly ways in their lifestyle, share their achievements, etc.
- The users can join or make their own community event and reach out to other users by posting it on their wall. This way we can reach out to more people compared to any traditional approaches.
- Yes, we can involve other users who are not following any sustainable lifestyle approaches by motivating them through posts. Maybe we can add a feature of receiving personalized messages and notifications.

Identity

- Social walls and forums are a means for people to communicate with one another. So this feature is not specific to any of the core identities that are directly targeted.
- Since it tries to promote an inclusive environment where everyone can comment, ask questions and post their updates with each other, it does not try to undermine an identity element.
- Since no user is perfect and everyone has a scope for improvement, social walls and forums do help people to adopt, reinforce and promote their identity.
- Yes, every user can share their accomplishments as walls and forums provides them with a platform to post it and it is visible to everyone.

Sensation

- The application as of now doesn't really have an aesthetic design, but we aim to implement this using good design principles and focus more on the aesthetics.
- Again the application is still in the function determination phase but we hope the users will be wowed by the simplicity and the function of the feature.
- The feature is able to be fun by making it interactive between the people by posting articles, queries and achievements on the wall making it super interactive.
- We haven't developed the aesthetics yet, as the task currently is to finalize the functionality and we aim to focus on the aesthetics once the functionality are finalised.

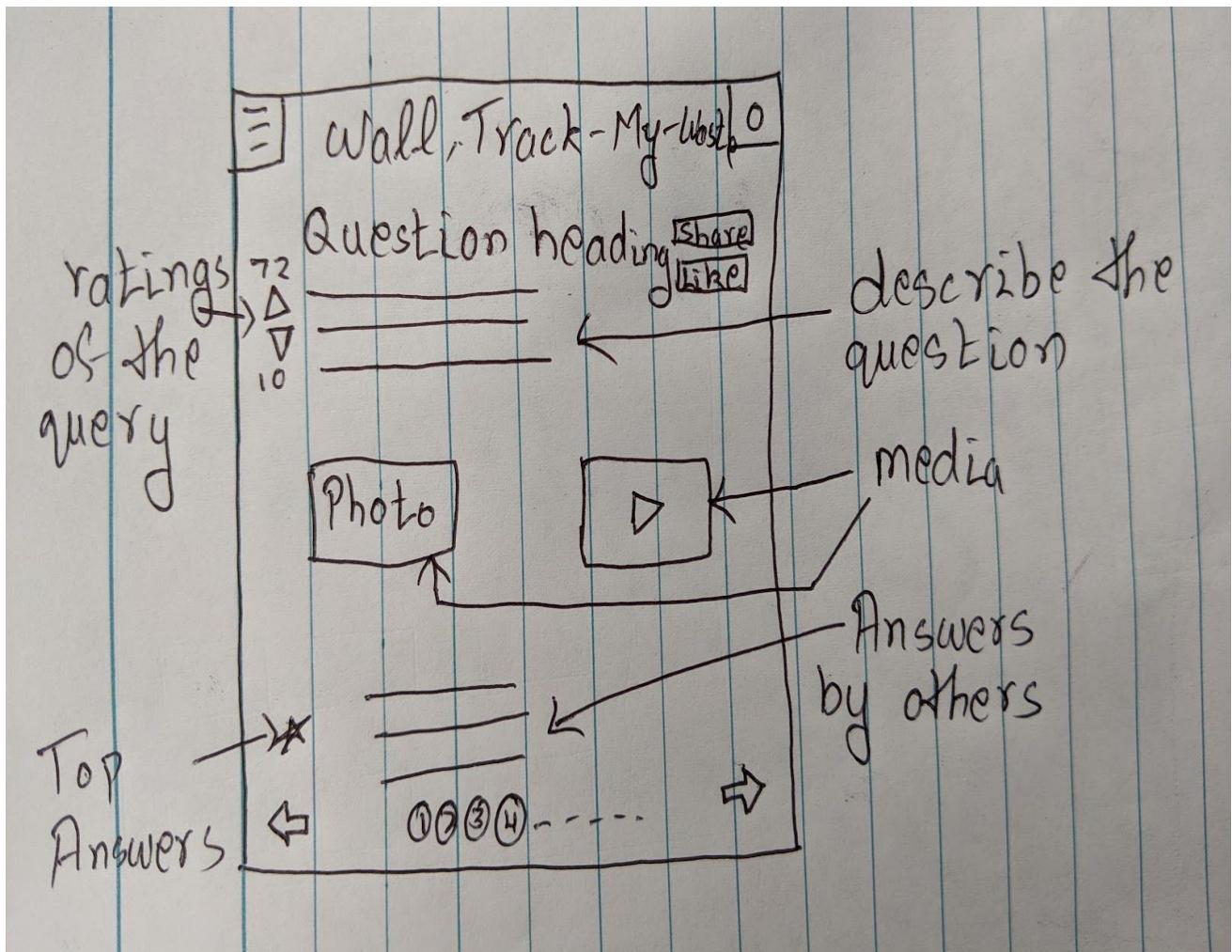
Direct Into Action

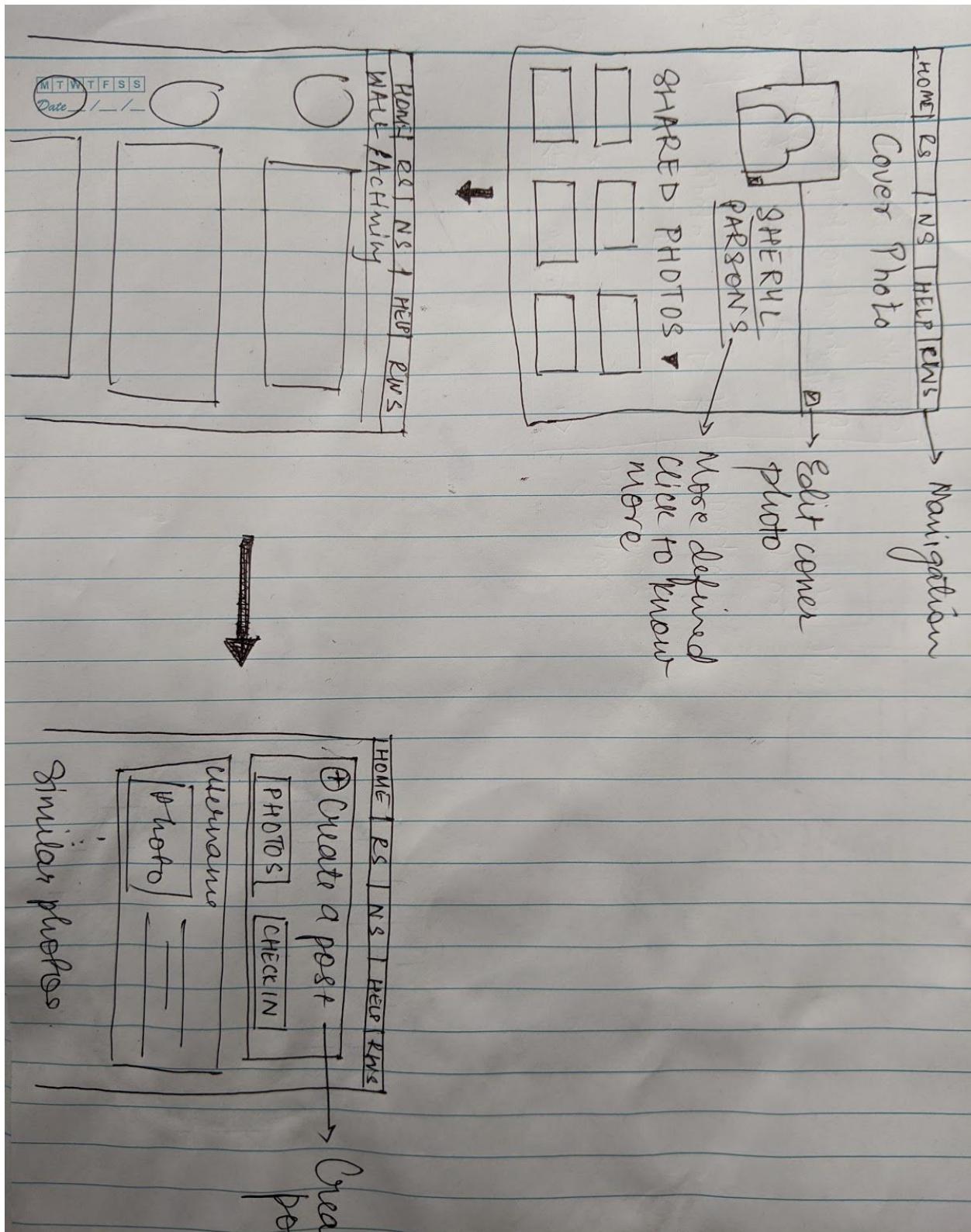
- Everything needed for a given intent is in place, the intent is for the user to solve their queries while successfully helping other users in the process.
- The user can easily transition between steps/action by using the navigation provided in the feature.
- The design does "think for the user", it provides help where needed, they don't have to be frustrated while searching options.
- The app might not be able to learn things without asking for it now, maybe it can provide a prefixed format of questions to users to help them frame their questions for the forum better.
- Every hassle is eliminated for now in the application.

Learning Delta

- Training is not needed for this feature, because the buttons or navigation options make use of skeuomorphism.
- For now, all the complexity is eliminated, but as the app develops further, new challenges will be curbed during the process itself.
- The app does nudge the users in the right direction, the navigation displayed is pretty straightforward without any complex decisions involved.

After cool drill down

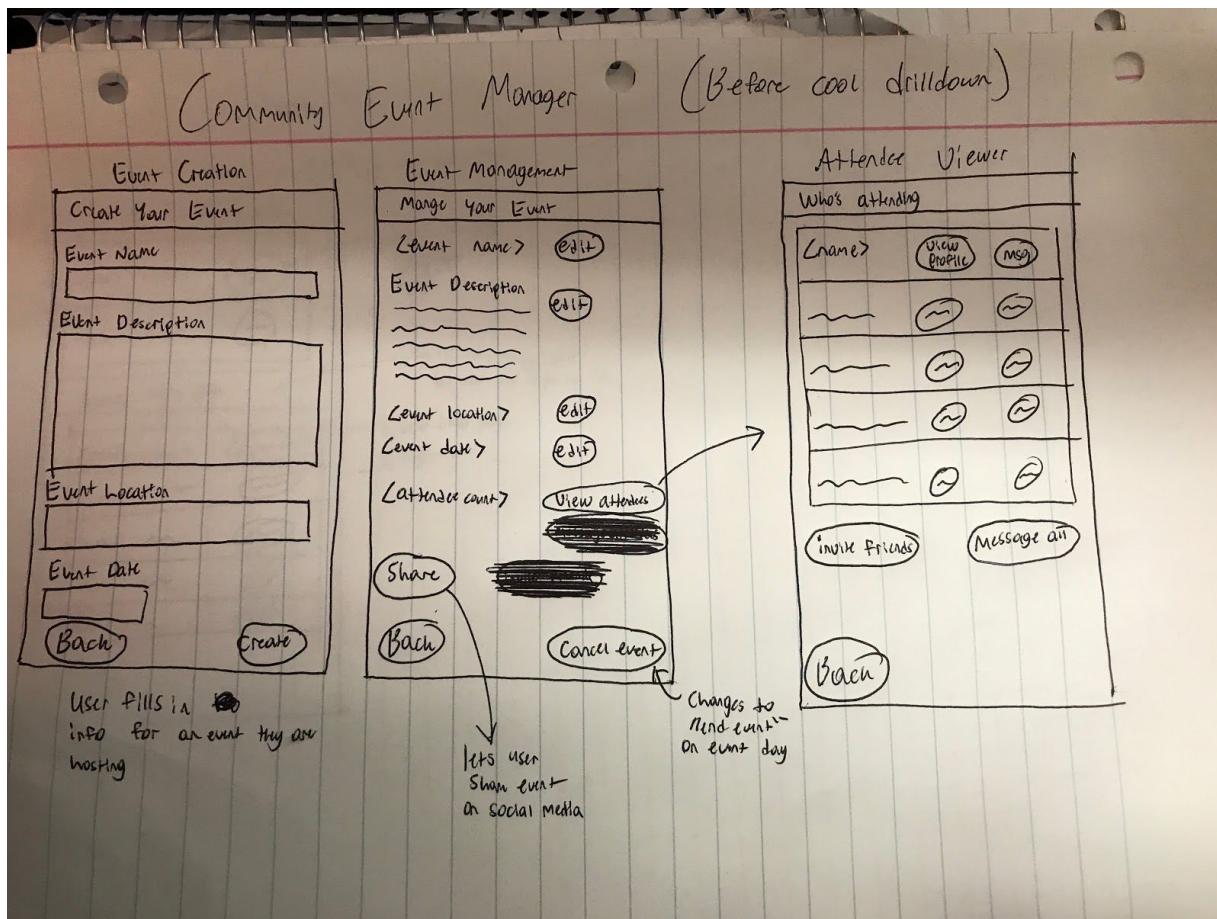


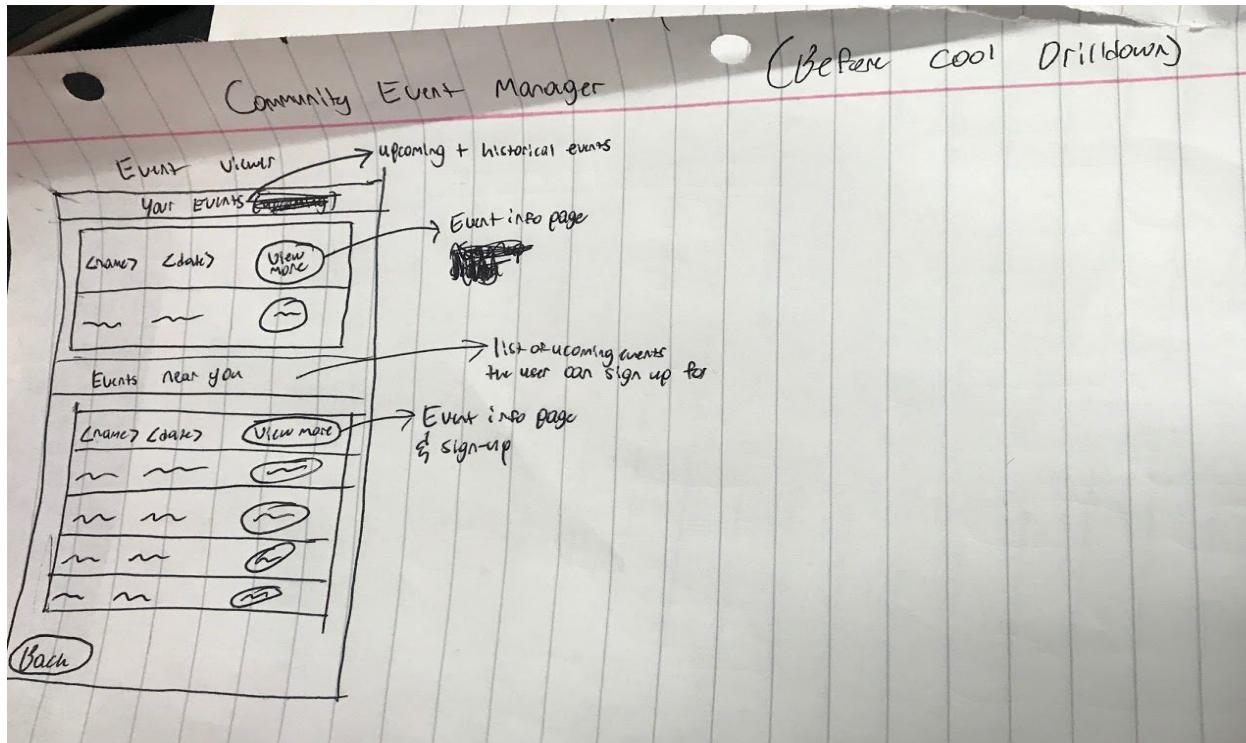


Concept 4: Community Event Manager [Jeff]

The event manager will let users host, manage, and attend events. Events vary from get-togethers to information sessions to beach cleanups to protests. It'll help to create a strong sense of community and bolster sustainability efforts through collective environmental action. The event manager will make use of an in-app messaging system to facilitate communication between the event host and the attendees. As an added benefit, users will be rewarded points for participating in community events. The user can also view pictures from the events they've participated in in a gallery and share the event on social media.

Before Cool Drilldown





Accomplishment

- The concept does adhere to anytime, anywhere access. The fact that it is implemented in a mobile application supports the anytime, anywhere aspect. The process of event management is also made simple with the app, which helps support anytime, anywhere use.
- Due to the simplicity of the event creation page, one could start an event in dead time. Additionally, the event management page, attendee viewer page, and event viewer page have rather basic functionality and require little-to-no sequences, and therefore can be used in dead time.
- The event manager does not support device switching because we only anticipated use on mobile devices. We visioned the app being used solely on a mobile interface. It would be wise to include a web interface for event management, however.
- The right information is provided at the moment it's needed. The event manager provides all of the relevant info for hosting and volunteering at events, and the notification system for the app pushes out reminders to the host and attendees.

Connection

- By the very nature of community events, the community event manager supports connecting with others. giving users the ability to start or join a community event means that the users will be able to connect with others at events. Additionally,

the event manager allows the attendees to message each other, meaning that there's also a digital pathway for connection.

- The user would likely share any events they're hosting or attending, as well as pictures from the event. The community event manager allows people to share their events on social media, and provides the ability for the users to take pictures and add them to an event gallery. The users can then share pictures from the gallery on social media.
- By the collaborative nature of the task that the event manager supports, it supports collaboration. Users collaborate by messaging each other before and during the event and working together at the event.
- Others who aren't normally involved in the task will also be able to join in. Any user on the app can join an event easily (regardless of whether they've participated in events before), and those who aren't on the app can open a shareable link to create an account and join the event.

Identity

- The core identities addressed by the concept are: influentially sustainable, sustainability enthusiast, and moderately sustainable. Those three are the most likely to get involved in a community event regarding sustainability. That's not to say the other identities won't find use in the event manager--community events can be a pathway to becoming more sustainable and the event manager welcomes them.
- None of the aspects directly undermine an identity element. The individually sustainable and unsustainable identities may not be the target of the concept, but they can definitely make use of the concept.
- The product concept does help people adopt, reinforce, and promote their identity. For those that don't regularly participate in community events, it will be a gateway to a new community-oriented identity. For those that are involved in community events, being able to participate in community events regularly will help them reinforce their identity. Also, those interested in promoting sustainability to others can use the concept as a means to spread the word about sustainability (they could set up an information session, for instance).
- As of now, the event manager only celebrates accomplishments insofar as reward points are a celebration. Perhaps some celebration pages can be added that show up after creating an event, after joining an event, and after completing an event.

Sensation

- We don't really have much in terms of aesthetic design, but when we implement our design we will strive to choose a pleasing color palette, animation, some sound, and movement.
- Once again, we don't have much in terms of aesthetic design, but the hope is that people are wowed by how simple it is to join and create events.
- We are able to make it fun without getting in the way of the task at hand—we facilitate interactions between people, let people take pictures, and reward points at the end of it all.
- Once again, we haven't developed an aesthetic for the app yet—we've focused mostly on functionality up to now; however, we'll put focus on aesthetic design once we get the functionality down.

Direct into Action

- Everything needed to start and join community events is provided in close proximity to each other.
- Users are able to transition between steps and action. Back buttons are provided to help with it. The sequences that are involved are pretty minimal, so it's not difficult to move between actions.
- The design does think for the user. all the user has to do is enter in the event details and the app will list the event, accept volunteers, and send reminders out to those volunteers. It also sends out reminders to the event coordinator. the coordinator does have to reach out and chat with volunteers on their own, however (but the app provides a system for reaching out to them).
- The app does learn about the user's behavior without asking. As the user attends events, it's noted in the app and they are provided recommendations based off of their activity.
- All of the hassles that come with community organizing that can be eliminated are eliminated through the event management system and the messaging system in the app. It turns the process of managing an event into a simple task performed in an all-in-one hub.

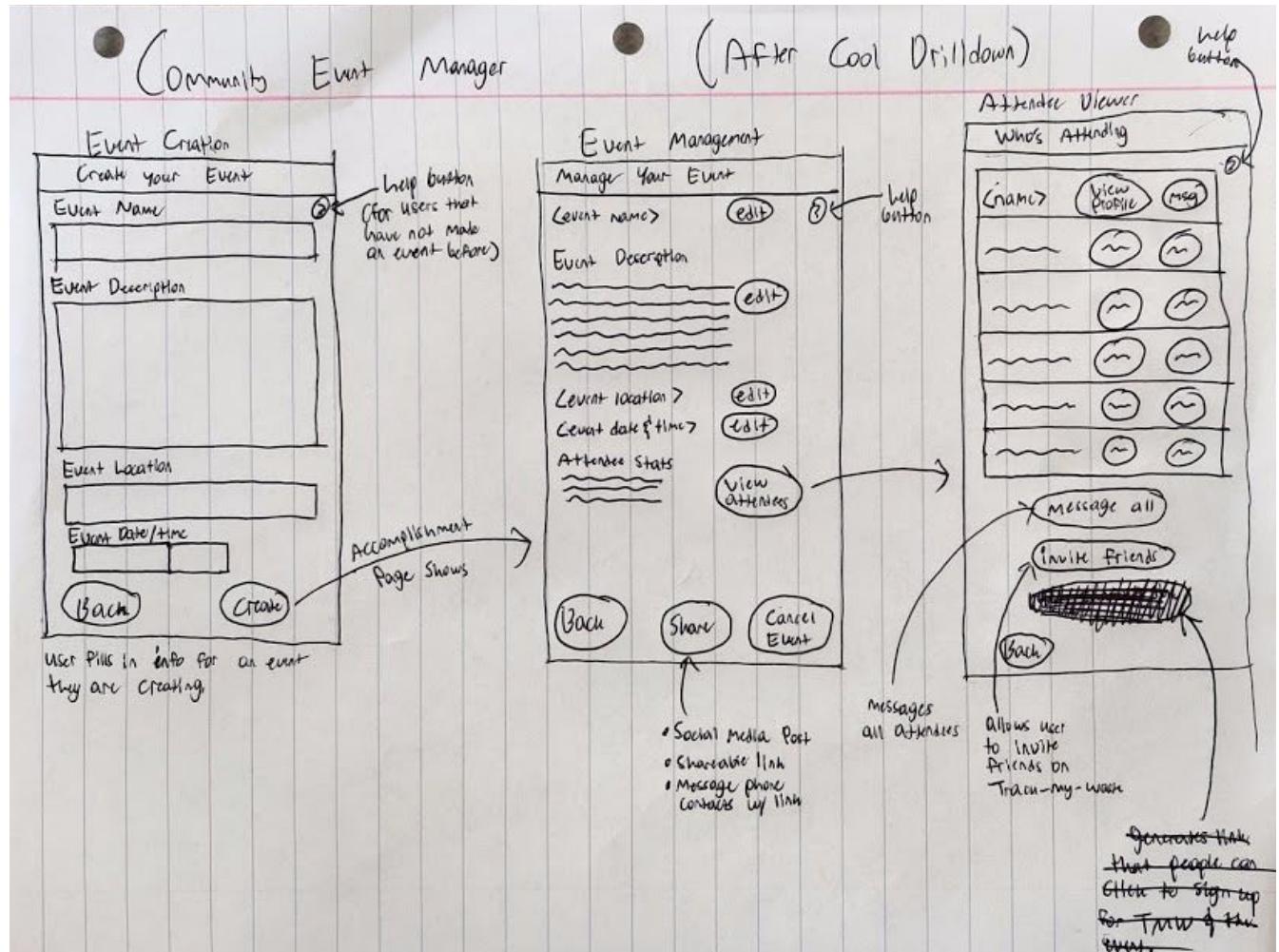
Learning Delta

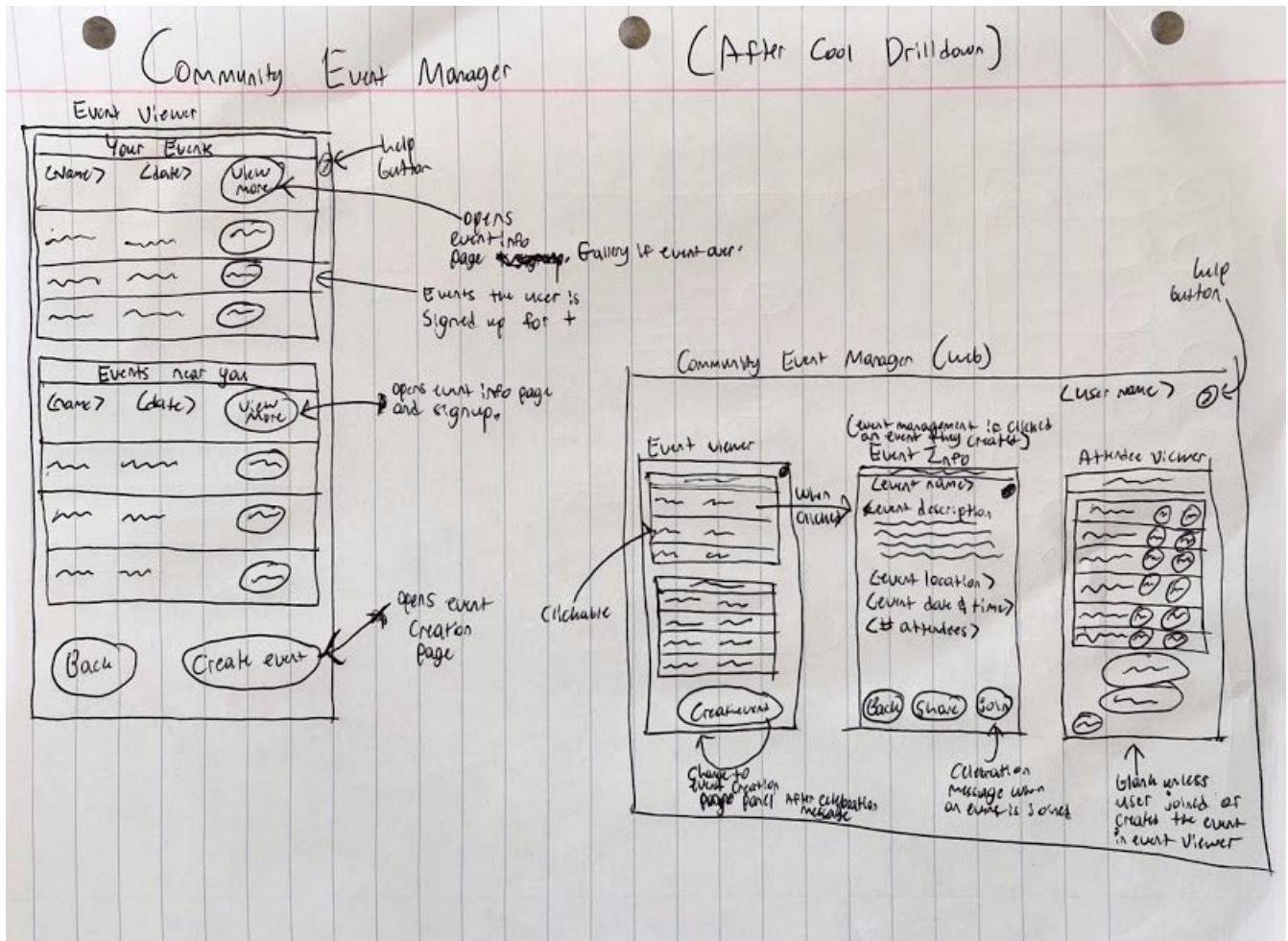
- Some training may be needed. For instance, someone might have never hosted an event before and don't know how one goes about setting one up. We could include a help section to facilitate the training that is needed.
- If hosting an event into a process as simple as filling out a form and messaging people. There may be complexities in messaging people and running the event,

but we could provide a help section for suggestions on how to make an event happen smoothly.

- The app does nudge the user in the right direction. Through simple sequences, recommendations, notifications, and help sections, the user is gently nudged in the right direction for starting or joining an event.

After Cool Drilldown

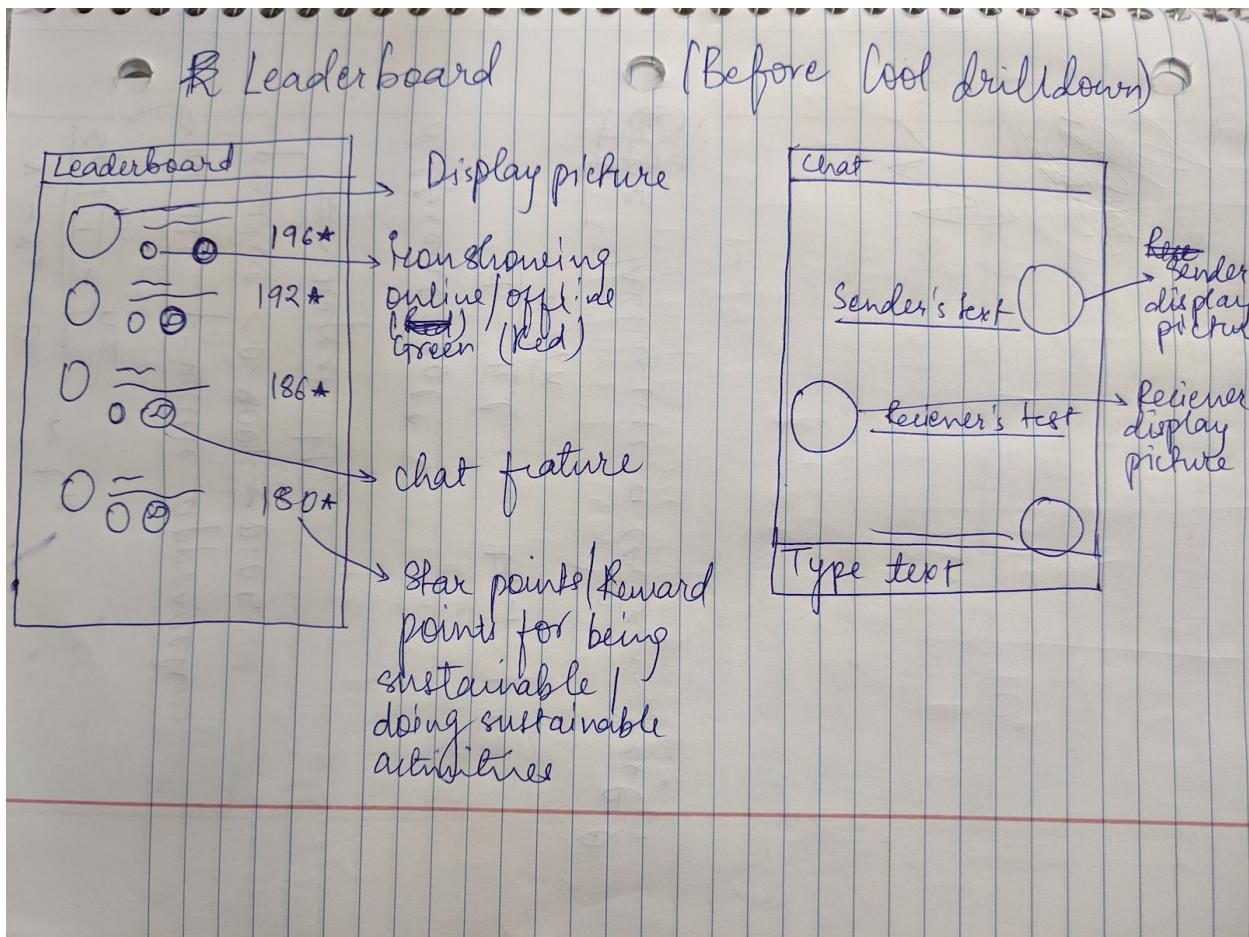




Concept 5: Community Leaderboard [Karishma]

The community leaderboard will rank Track-My-Waste users based on the amount of reward points they have (reward points are given out when sustainable activities are done). It'll create a friendly competition amongst users, encourage users to be more sustainable, and strengthen the social aspect of the app. Additionally, it'll allow users to gauge how sustainable they are compared to others using the app. Users can also message people high up on the leaderboard so that they can learn tips from people who are good at being sustainable.

Before Cool Drill Down



Accomplishment

- This concept does support anytime, anywhere access. Moreover this feature also allows you to see the leaders. It might be interesting if the leaders appear

according to regions you are currently in.. As this feature is in an application which you download on your mobile devices, assures support anytime, anywhere.

- The parts of the task can be done during “dead time”, as the only gesture you perform here is scrolling through the names of the leaderboard.
- For now, it doesn’t, maybe an updated version can have a web page.
- All the information needed to check the points, to see if a person is available is online/offline to initiate a conversation and their current position on the leaderboard.

Connection

- The chat feature helps users to connect with relevant others easily and often, even if the users are offline, messages can be sent in their inboxes for later viewing. This happens with a press of a button and a user can send the message as often as they like, there are no limitations for that.
- The user would want to share their knowledge about an upcoming trend or invite the leaders to the events they create.
- A help answer them questions the leaders might have put up on the forums. They can share information, it would be nice if they are able to share webpages, images, videos and gifs for a fun element.
- This feature does not allow the users to do the tasks together, this is an individual process limited to the user's own intentions.
- The user may not be involved with others normally, the involvement is limited to the user who is the receiver of the message, and his involvement can be gauged if they respond.

Identity

- The core identities targeted by this product concept are the motivations and demotivations users face while observing the leaderboard. The top scorers can feel a sense of accomplishment by looking at their contributions, even though they don't want to reap material benefits, it can be a piece of their mind. Also, the newly sustainable users might not use the leaderboard feature, because they haven't contributed as much or the leaderboard can also be a source of inspiration for them.
- It is a fair feature, if you perform tasks you achieve points, if you don't perform them you don't get points. It is not biased.
- As mentioned before, the users can be inspired from the leaderboard and in order to achieve maximum points they can adopt various habits that the leaders have and reinforce it in their personal life.

- This feature definitely helps the users celebrate themselves and their accomplishments. The points featured on the board will provide them with a sense of accomplishment.

Sensation

- The people are drawn into the app by the attractive “star” displayed near their points, but in order to show their level of use, the app can inhabit the use of 1-5 tree icons to show the level of use.
- It does “wow” the user without distracting them, the “wow” factor comes into play when they are leveled up by one more tree.
- It can be fun when you get more points, it doesn't get in the way in the task, instead it motivates the user further to make the tasks happen.
- The aesthetic design is appropriate and modern and fun, the user's might react to the colors and text positively.

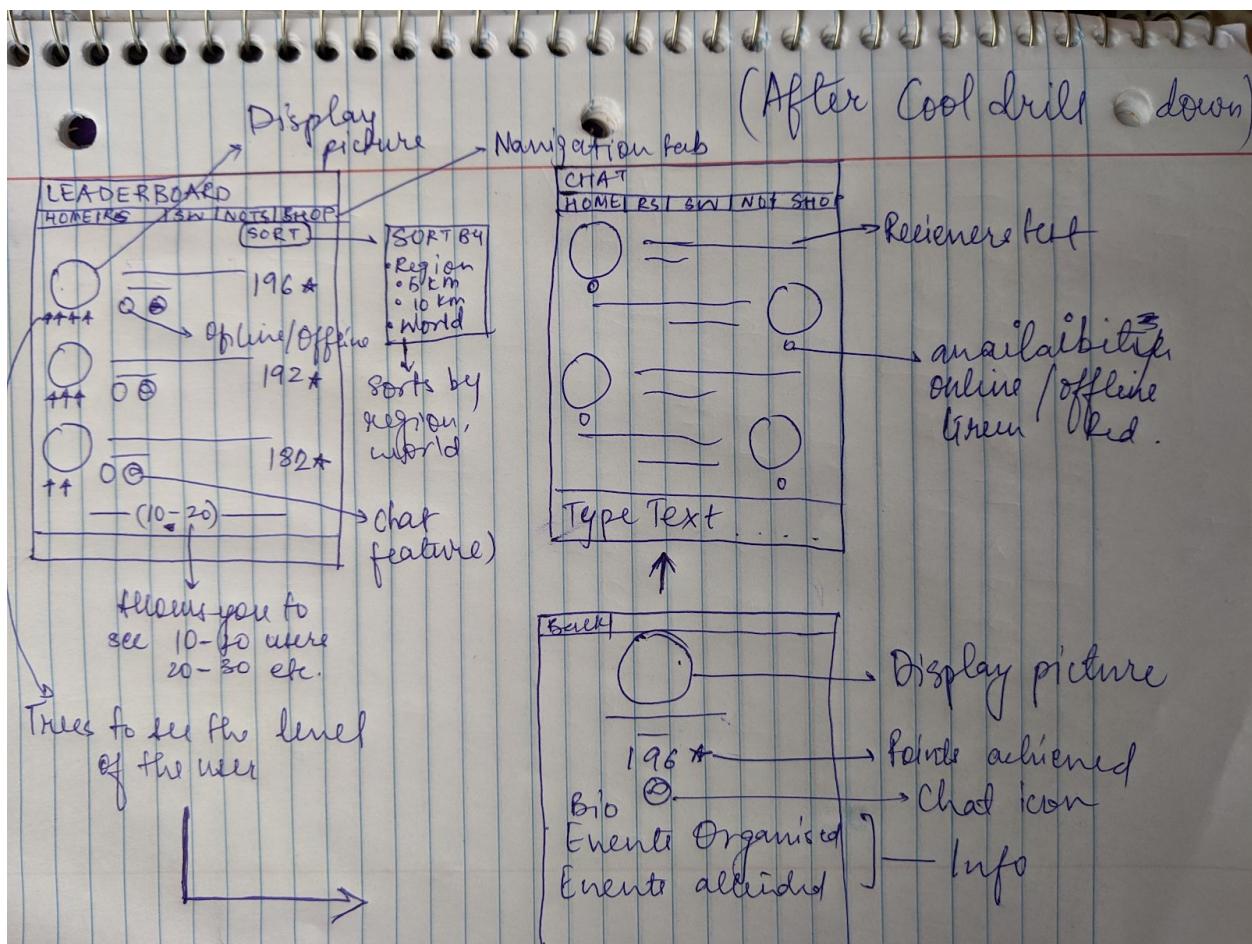
Direct into Action

- Everything needed for a given intent is not available in one place, maybe introducing some tabs to navigate through the system help.
- The user can easily not transition between steps/actions as of now. It can be introduced on the cool drill down concept.
- The design “think for the user”, it takes into account user's desire for competition or it is an inspiration element for the user to get points. The points also buys users rewards from the shop, so it also satisfies the user's material desires.
- The app might not be able to learn things without asking at this stage.
- Every hassle is not eliminated for now, more work is required to put everything in place.

The Learning Delta

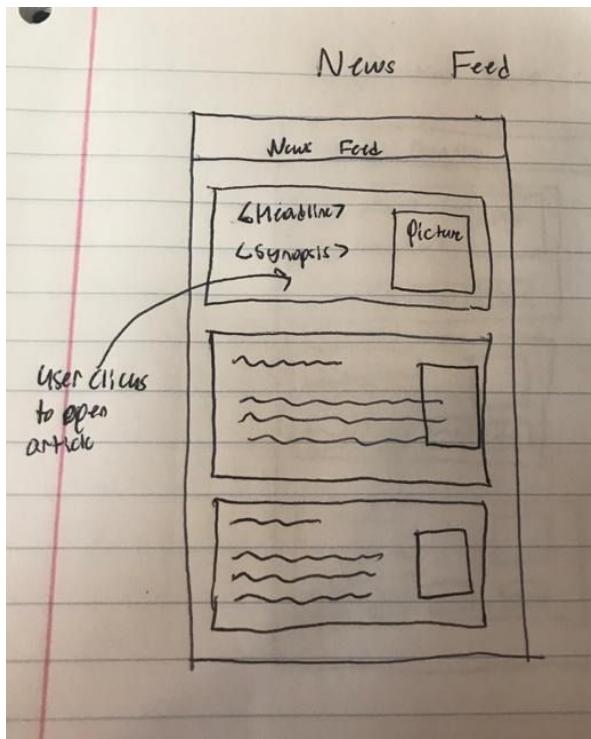
- Training is not required, the application feature is quite inquisitive and matches the real life system with the wireframes options, so the users can go through using the app.
- The feature is not complex, it generally just depicts information or allows users to send messages to each other, which can be derived from the icons.
- The app does nudge the users in the right direction, it influences them to be more sustainable.

(After Cool Drill Down)



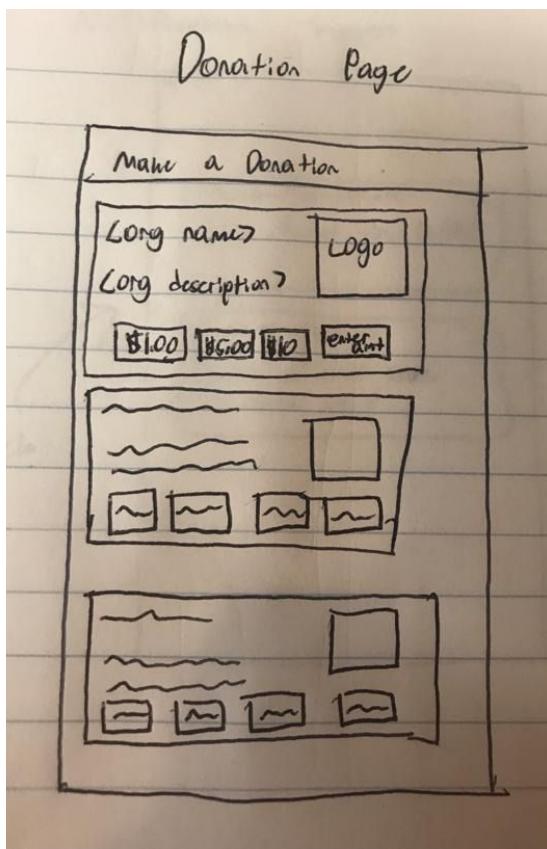
Concept 6: News Feed

The news feed is a pretty basic feature. It'll provide users with a feed of news articles and media that relate to sustainability. The hope is that users will become more informed regarding sustainability and the state of sustainability around them, then use that information to be sustainable and promote sustainability in their lives.



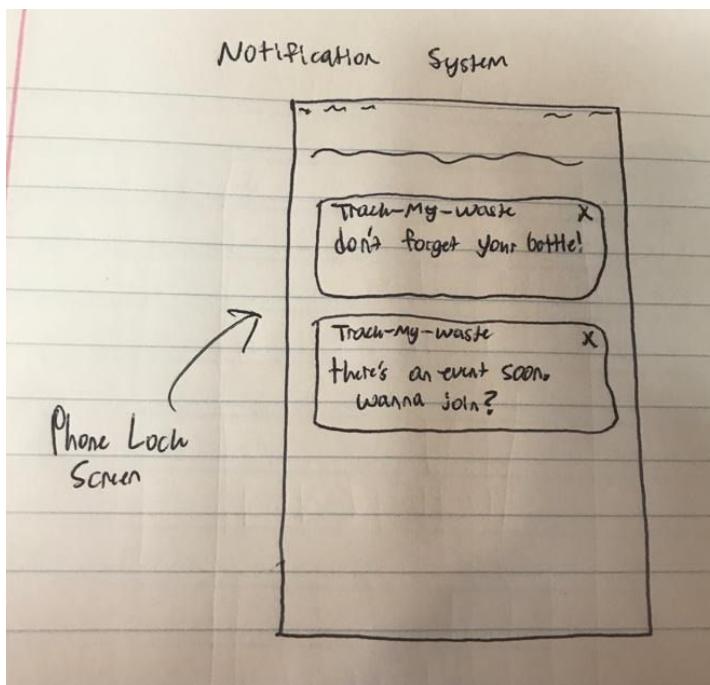
Concept 7: Donation Page

The donation page is a place where users can make donations to various NGOs that promote sustainability. It'll allow users who don't lead a sustainable lifestyle to chip into the effort in a small way—monetarily; it'll also allow people more involved in sustainability to express support for different organizations. Users will receive points for making donations.



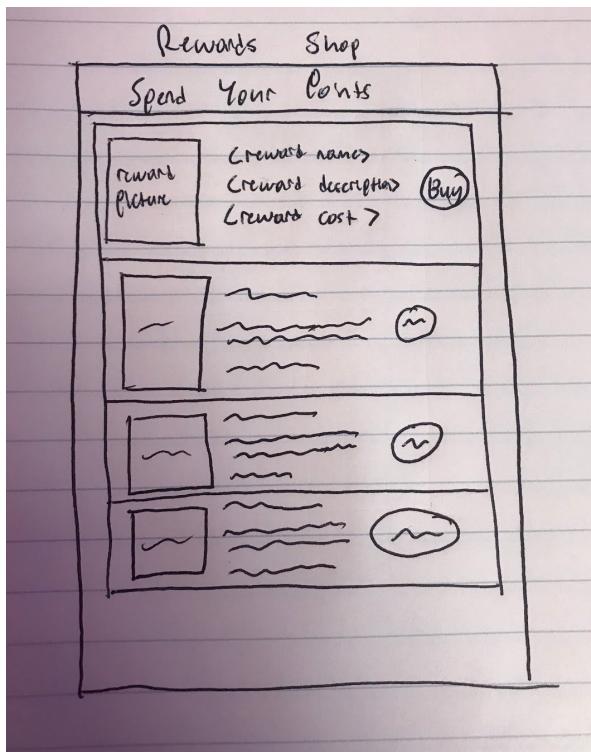
Concept 8: Notification System

The alert/reminder system is a smart notification system. It'll push notifications so that people don't forget various items for the day (e.g., their own cutlery, cups, etc.), don't forget to log their waste, and in general don't make forgetful mistakes people make when trying to be sustainable. The notification system will take input from the user survey to personalize the notifications, and the user will be able to adjust their notification settings so that they aren't under/overwhelmed by notifications.



Concept 9: Rewards Shop

As the user performs sustainable tasks, they receive reward points. The reward points can be spent at the rewards shop, which lets users trade in their points for products provided by Track-My-Waste partners. For example, someone could trade in points for a metal straw. The hope is that the rewards shop will provide some sort of material incentive for users to participate in sustainable activities.



Personas and Scenarios

Introduction

We came up with five key personas: Zara Reynolds, a sustainability enthusiast; Sheryl Parsons, someone making efforts and learning how to be more sustainable; Parker Hunt, someone who's not sustainable by any meaningful metric; Peter Adams, a person who makes individual efforts to lead a more sustainable life; and Paula Martinez, a person who makes collective efforts to promote sustainability.

We were able to come up with five key scenarios, one for each persona.

The sustainability enthusiast (Zara) goes through her waste dumping day routine, segregates and dumps her waste, logs the waste via Track-My-Waste. She has difficulty in the process and consults one of the higher-ranked people on the Track-My-Waste leaderboard. She also logged the waste for a friend and got them to download Track-My-Waste. When she finished dumping her waste, she set up an event through the app.

The moderately sustainable person (Sheryl) browses the internet and learns how to be more sustainable. She finds Track-My-Waste in the process, which kick starts her journey into leading a more sustainable life.

The unsustainable person (Parker) has an interaction with a sustainable friend and gets inspired to download Track-My-Waste. As a result, she builds an appreciation for sustainability. The individually sustainable person (Peter) goes to a restaurant. There, he uses reusable cutlery and encounters someone who's ignorant about sustainable as well as some friends. He logs his waste at the restaurant and manages to get some friends interested in sustainability. The Influentially sustainable person (Paula) sets up a community event to protest fracking. She goes through the process of creating, managing, and executing a protest via the app. After the protest, she views pictures and posts on social media about her event, and eats at an eco-friendly restaurant recommended by the app.

Persona-Scenario Combos

Combo 1: Zara Reynolds - Community Waste Bin [Karishma]

Zara Reynolds [sustainability enthusiast]



Hard Facts

Zara is a 25-year-old, Computer Engineer who works in San Francisco, California for a startup ExWhyZee that comprises roughly 25-30 people. She was raised in Sacramento, California around beaches and mountains. She got her degree from UC Berkeley in Computer Science Engineering, she loves algorithms and programming. She has always been a beach buff, enjoying her summers on the beach with her family and friends, scuba diving, swimming or building sandcastles as a kid.

Interests and values

At ExWhyZee, Zara is responsible for developing software and updating the stakeholders about the progress of the project, she has unmarried an lives in a refurbished loft, which she decorated by stacking up magazines and making them into

sitting spaces, using twines to hold the potted plants, using wooden crates to make bookshelves, etc. She also has an array of clay and wooden pots for cooking food and a ton of mason jars to store her supplies. She also has a variety of cloth bags to buy groceries and to store commodities. Her entire loft is 97% plastic-free, the plastic used in her house is the waste bins and the items which come in plastic like the cling wrap, Tupperware containers, etc. She prefers composting her biodegradable waste and recycling others, she also does it for her new door neighbor, Mrs Mars, as she believes in recycling but is too lazy to do it. She also prefers a diary free, plant-based diet due to a vegan upbringing.

Zara likes to have a minimalist wardrobe, this was mainly influenced by a documentary she watched with her Volunteer's group for Recreation, where they organize beach clean-ups, recycle and volunteer programs and marathons to support different sustainable activities. Despite having minimal choices, Zara is always dressed in a fun

and fashionable manner. She also uses minimal makeup and is always on a hunt for vegan, cruelty-free brands.

She loves painting and recently signed up for an organic paint making workshop because she came across the adverse effects of toxic elements present in paint pigments. She usually spends her time reading fiction, blog posts or news. She loves watching anime and prefers to do it with her friends from the volunteer group.

Zara's idea of a party is a huge gathering of people with fun games and activities, with a potluck to share and save food. Whenever she goes out for dinner with her friends she carries her own takeout boxes and metal cutlery set, which comprises a straw, spoon, fork, and a knife. She tends to carry her reusable water bottle to avoid buying plastic bottles, to reduce plastic wastage.

Computer, Smart Phone, Internet Use

Zara does all her programming and software tasks on her company's system, she has mastered various coding languages like Python, C++, etc. Sometimes, she also uses documentation and presentation software for her meetings; she uses her computer to watch movies, tv shows and listen to talks about sustainability.

She uses her phone to communicate with her friends, family, work and the volunteer group; uses it as a reading device to stay up to date with the news, sustainability trends and research, podcasts and events in the community. She is always on a hunt to find out more innovative ways to be sustainable. She currently has a daily life blog, where she talks about her refurbished loft, shares vegan recipes, reusing the waste and DIY-ing them into something useful and her daily findings on these topics. She doesn't have a larger audience but she keeps in touch with them through the website comments/emails.

If she is assigned a task using new technology/software, she prefers taking up an online course, or by self-teaching her using the internet. She likes it when things are self-explanatory and she doesn't have to find an expert to guide/solve her pertaining doubts. She says she feels a sense of accomplishment when she can do something entirely by herself, she doesn't want to frustrate her teacher because she likes to think herself to be inquisitive. But if she needs help, she likes to ask questions on the online forums, ask her fellow colleagues or just IT support of her company.

A Typical Day

- Zara wakes up at 6:00 am, practices yoga and meditation. She likes breakfast for herself and packs leftovers for lunch. She throws her organic waste in the compost and recycles the rest if need be. She packs her laptop, water bottle, cutlery and heads to the bus stop. On the bus, she likes to scroll through her social media and read comments on her blog.
- She reaches work at 9:00 am, checks her schedule for the day and returns phone calls/emails. She attends meetings and works on her projects.
- She likes to have lunch in the cafeteria with her colleagues or go out to a nice quaint vegan cafe down the street.
- She finishes work around 6:00 pm, at this time she either takes the bus or carpools back home with her co-worker. It depends on her schedule, if she needs to do some shopping she takes the bus, if she wants to get home quickly, she carpools. She goes home, calls her parents, watches some tv shows and finds recipes to cook.
- She starts making her dinner at 7:00 pm while face-timing her best friend, sits down to eat while watching some tv.
- After finishing her dinner and some small household chores like composting her food scraps, recycling her trash, etc. She likes to read fiction novels. She likes to take time and update her blog, talk to her volunteer group for any upcoming plans/drives.
- She has a fixed night routine before sleeping, she uses her bamboo brush with her toothpaste which she stores in a mason jar, her skincare and reading blog posts. Get ready for bed and sleep.

Future Goals

Zara strives to live a 100% plastic-free life and help others to do so too in the process, she wants to spend more time on volunteering for beach cleanups cause being around a beach is her favorite thing to do. She also hopes to find a partner who shares the same views as hers.

Scenario: Going to the Community Waste Bin

Zara as described is a zero waste pro, and her sustainable habits are drilled into her as she has been practicing them for a long time, trying to reduce wastage and plastic use in her life while helping others, today is her designated waste dumping day, she cleaned her loft and segregated the waste in the respective trash bags. She needs to go to the community waste ground to throw out her waste, she goes next door to pick up Mrs Mars and her waste.

The first thing Zara does is open the Track My Waste App and opens the “recommendation system” feature to check the whereabouts of the nearest community waste ground and their timings. She reaches the location with Mrs Mars, and unloads her car, uses a homemade disinfectant and sanitizing spray, which she learnt how to make from an article she read on the “News Feed” section of the app, to get rid of the smell and possibly the germs that resulted due to Mrs Mars’s biodegradable waste. Mrs Mars, doesn't own a compost of her own, so she dumps her organic waste in the community dumpster.

Once she is inside the premises, she carefully dumps all her waste and keeps track of the plastic she used for the entire duration, by using the “waste log” feature in the application. She likes using the plus and minus signs, it helps to count the items on the go without the pains of memorising the numbers. She sees Mrs Mars, struggling with segregation of her waste, particularly a bottle made of the composite material which seems to be a mix of plastic and glass, she looks for information on the nearby info board, failing to find anything she opens the “Leaderboard” feature on the application to check if Nisha, the top scorer on the leaderboard is online, and shoots up a message to her and subsequently posts it on the forum. She starts segregating other wastes, waiting for the answers, after receiving a reply from Nisha, she promptly dumps the composite bottle in the designated bin, and she updates the answer on the forum, achieving points for her newest find. She also tallies the waste for her neighbour and puts in her log, an apologetic Mrs Mars inspired by this routine act, decides to donate to Zara's volunteer group using the “Donation Page”, and decides to seek more information about recycling. Meanwhile, Zara has a spark of an idea for the next event for her volunteer group, “Recycling Difficult Waste”- a guide to recycle your composite material waste, she creates an event for the upcoming weekend, and asks her group about their availability to help out, she sends out an invite on the “Social Wall”, describing and summarizing the content of the email, subsequently invites her friends, and finds Mrs Mars to be the first attendee on the attendee page. She consequently sets up reminders on the app for the things to do be using the “Notification System” feature to remind her to set things up for the event, the research she needs to do and the people she needs to invite further for guest lectures.

She tries to contact the influencers and leaders from the leaderboard who have managed to keep not only themselves but their entire families and neighborhood households, plastic free. She also invites a government official from the state to talk about their grievances and content. Satisfied with her work that afternoon, she drives

Mrs Mars and herself home, and starts working on the upcoming event, hoping it to be a success.

Combo 2: Sheryl Parsons - Learning New Ways to be Sustainable [Parth]

Sheryl Parsons [moderately sustainable]



Hard Facts

Sheryl Parsons is 29 year old pursuing her PhD in the field of Computer Science at Clemson University and is going to finish her doctorate by next year. Prior to being a doctorate student, she worked as Assistant System Engineer at Tata Consultancy Services for two years.

Interests and Values

Sheryl is an avid reader and loves to be updated with the latest news. She always carries a book which she loves to read in her free time. She is aware of the environmental changes and believes that it is a serious issue we are facing right now and we should reduce our carbon footprints at an individual level. She started by carrying her own bag while visiting Walmart and increased her cycle usage when she wants to go to a nearby place. She also started segregating her waste into two types (biodegradable and non biodegradable waste) after her friend's recommendation. She informs her friends who were not aware of these environmental changes via posting it on social media or conveying the message personally. Even though these activities are a bit time consuming, she believes that environment change is real and we should all contribute our own part to prevent it from happening. Due to money constraints, she does not own any vehicle and relies on public transport to travel from one place to another. She is a fitness freak who goes to the gym everyday and makes sure that she has a balanced diet. She prefers cooking her own food but she is busy with her research and studies so she has to go to the dining hall to have her everyday lunch. She has a small group of friends that she usually hangs out with and prefers to be at home as she is usually tired from all the assignments and her research work. Once in a month, she likes to go out with her friends for a hiking trail near her. She enjoys going out in nature and camping out in the wild for an adventure as it reduces her stress.

One of the things she most enjoys is shopping. She follows all the major brands and fashion influencers online to stay updated with the latest styles and trends. She is always looking out for a sale and ends up spending all her savings on them.

Computer, Smartphone and Internet use

Being a Computer Science graduate student, Sheyl is updated with all the new technologies that are in the market. She prefers to own apple products over any other and owns a Macbook Pro, an iPad and an iphone XR. Even though apple products are a bit expensive, she prefers user convenience over price. She uses her iphone to browse through her social media, listen to music, watch videos and for setting up her alarm. She uses her Macbook Pro to complete her programming assignments and her research projects. She has a 4 screen Netflix account and shares it with her friends to save some money. Similarly she also shares her amazon premium and hotstar accounts with her friends. She also owns a TV but she rarely watches any shows as she prefers to watch it online.

A Typical Day

- Sheryl usually gets up around 6 am and the first thing she does is she makes a cup of tea for herself. She cooks a heavy breakfast for herself (usually eggs).
- After one hour of having breakfast, she goes to the gym at 8 am and does her everyday workout. Usually it's a one and a half hour workout but sometimes it does take around 2 hours to complete it.
- After gymming, she cycles back to her place and refreshes her by taking a 15 minutes cooldown break.
- She has her classes on Mondays and Wednesdays from 12 pm to 6 pm. After attending the first lecture, she goes to the dining hall to have her lunch.
- On regular days (except Mondays and Wednesdays) she goes to the library and studies for around 4 hours.
- She also visits her research lab regularly and makes sure that she attends all the weekly meetings.
- She usually uses the public transport to get back to her place and sometimes her friends give her a ride.
- She gets back to her home by 7 pm and starts preparing for dinner. She watches her favorite shows while having dinner.
- She is preparing for competitive programming and tries to solve at least one problem a day to improve her problem solving skills.
- She usually goes to sleep by 10pm as she prefers to have an at least 8 hours sleep

Future Goals

Sheryl aspires to be a software engineer at one of the top four product development firms (Google, Amazon, Apple and Microsoft). She enjoys software development and is amazed by the power it has to provide solutions to real world issues. She wants to develop a software application which can solve a major problem that is currently being faced and help people around the world.

Scenario: Browsing

Sheryl is a moderately sustainable person and cares about the environment. Even though she was a graduate student pursuing her doctorate degree, she used to be involved in eco friendly activities like segregate her waste into two types (biodegradable and non-biodegradable), consuming less energy (power) and using public transport to commute to places that were time consuming.

She likes to read the newspaper everyday and after reading about the Australian fires that happened last year and its effect on the environment, she researched more on this topic and started taking steps on an individual level to reduce her carbon footprints. She believes that this is a very serious concern and it needs to be addressed. All of us should come together and take precautionary steps to make a noticeable change and prevent this from happening.

She went on online forums as she wanted to learn more regarding the environmental changes. One of the forums recommended her to download the Track-my-waste application. Since she does not know much about the precautionary steps and willing to learn more regarding the same, she downloaded the application. This application would recommend her to complete various daily tasks like using a cycle, being vegetarian, reduce the use of plastics, plating a tree, using public transport or carpooling, reduce your water usage and many others. As stated by the app that it takes 1000 years for plastic to decompose and it releases many harmful chemicals when exposed to heat, She started carrying her own cloth bag to Walmart and reusing the plastic bags she has received from her earlier visits. The app lets you earn points by completing the daily tasks and these points can further be redeemed for various eco-friendly products like cloth bags, bamboo sticks, reusable straw, etc. This was really an engaging feature for her as it gamified the experience and promoted her to complete the tasks. Using her cycle to visit nearby places was a double win scenario for her as she can contribute her part for a sustainable environment and this can help her in living a healthier lifestyle.

The most innovative feature of the app for her was waste logging. She never thought that this could be possible and was intrigued by it. She started logging her waste on daily bases and visualized her results. The visualization provided by the app helped her to compare her monthly results with her friends. The app also displays a leaderboard based on the points you have earned each month. She tried her best to be on top of the leaderboard every month and post these achievements on social media to spread the message and promote others to live a similar lifestyle. It also has a news section where she reads all the articles which are related to the environment. Being a student, she does not make any donations to the world organizations that are fighting for this change but she wishes to donate 1% of her salary every month once she starts earning.

For Sheryl, this is an application which covers all the features one can think of and she is satisfied with the overall experience. She also asked many of her friends to download and use it.

Combo 3: Parker Hunt - Inspired by Friends [Dhananjay]

Parker Hunt [not sustainable]



Hard Facts

Parker is a 25 year old Masters student in Clemson University. She lives off-campus in Clemson. She was born and brought up in Wisconsin. Parker worked for three years in General Electric as a technician.

Education/occupation

Masters in Electrical and Computer Engineering student in Clemson University.

Works part-time on-campus and is a research assistant in the electric motors lab.

Lifestyle and interests

Is not a sustainable person at all. Mostly concerned about money and trying to compare and buy affordable stuff as much as possible. Owns a car and prefers driving wherever possible. Normally her car is stuffed with her luggage?(find a better word for this) Being a student prefers convenience for everything. Buys bottled water rather than using a reusable bottle. Prefers taking take-out from drive throughs as she can eat her lunch on the way and uses the plastic cutlery as it is easily disposable and doesn't have to worry about washing and carrying those around. She does not have interest in sustainability or is not actively concerned about the environment. She likes electric motors and is working in her lab on building one. Is inspired by Tesla motors. She has a lot of friends from college and her neighborhood and likes to mingle with new people a lot. She likes to let herself loose on the weekends as it releases the stress she has from studies and feels it helps her prepare for the next week, and helps her in performing better. She likes to go bar hopping on the weekends and meet a bunch of her friends for brunch on saturdays.

She likes to shop and stay updated with the latest trend in the fashion industry. She mostly shops online since it is convenient and can try clothes at home at her leisure. For college she prefers wearing outfits from the thrift stores. She normally prefers comfortable clothes for college depending on the weather and doesn't like dressing up to college much.

Regarding sustainability she thinks that it is not her duty to be concerned about it and her actions do not affect the environment as much and feels as an individual her contribution is not going to help. Regarding volunteering for environmental events, she prefers helping the world by her work would be a better utilisation of her time rather than volunteering for an environmental event.

She is an active member of women in technology and attends conferences like Women Impact Tech, WECode on a regular basis to promote gender equality in technology and inspire more women to join technology.

Computer, Smartphone and Internet Use

Parker uses technology to a large extent in her day to day life. On a daily basis she uses her smartphone, tablet and laptop. She uses her smartphone to stay in touch with her friends on social media and to set alerts and a bunch of applications ranging from fitness trackers to a calendar. She uses her phone to watch videos and listen to music on the go. She uses her tablet in lectures to take down notes and browse through slides, instead of a notebook and pen. She uses the internet to stay updated on social media, read articles, news and to search every other thing just like a millennial.

For her studies, she uses a laptop which she normally carries to her college or is always with her in the car. She works on her assignments and uses various tools required for the assignments. She prefers using her email for communicating with her project mates.

She likes technology and prefers updating her phone and laptop on a regular basis. Parker tries to follow the latest social media trends and is easily influenced for using new applications if her friends are on those platforms. She recently joined a Nike runners group in Clemson, because her friends were there and is now thinking of becoming health conscious.

A Typical Day

- Parker gets up at 8 am. She cooks breakfast, or if is in a hurry quickly makes a smoothie or a milkshake and leaves for college.
- On the way to college she gets coffee from a Starbucks drive through and if she is hungry then purchases some bagel or sandwich.
- She attends lectures till 11am or 12pm and then heads for lunch to the cafeteria or a fast food restaurant of her choice.
- Visits her research lab and spends some time there and attends a few meetings.
- Meets a few friends before lectures and then attends classes till 5 pm
- Goes for her part-time work which is 2-3 hours daily. Waits back and meets up with project members to work on the project or leaves for home.
- Reaches home and cooks dinner.
- Spends some time with roommates and watches TV shows and goes to bed.

Future Goals

As a short term goal, Parker wants to complete her master's and get a job in Tesla. Wants to work in the industry to implement her knowledge in the real world and build faster electric cars. For her career she eventually wants to launch her own company around electric motors and build a high mileage fast electric car. She also desires to inspire more women to join technology.

Scenario: Getting Inspired to be Sustainable by Friends

Parker, as described above is an independent personality and she is not bothered about the environment or sustainability as such. She being a student is more conscious about her budget and getting things done quickly and as efficiently as possible. She believes it's not her responsibility to worry about the environment. Parker has a friend Christopher who is very much involved in sustainability and tries to spread the message as much as possible. Christopher tries to instigate a discussion with his friends regarding sustainability and change their habits. Also, when Parker met Christopher over brunch on a saturday, she saw that Christopher was carrying his own cutlery and to-go boxes, and was intrigued by his actions and found them to be a bit extreme.

Christopher, as a force of habit, then started to explain to Parker about why he got his own cutlery even though the restaurant would provide him with plastic cutlery and thermocol to-go boxes. He started explaining to her about the damage plastic does to the environment, showed her a few videos or plastic straws being stuck in a turtle's nostril and a tonne of plastic floating on the ocean. Christopher went on and on and Parker finally asked him the same question: what difference would one person's contribution make. Christopher then explained to her more about it. He then found a

point that Parker was interested in electric cars. He explained to her how electric cars are linked to leading a sustainable environment. He introduced her to the Track-My-Waste app where for being sustainable she could score points and then use those further and he even introduced her to the leaderboard in the app to show her the incentives and display the number of users that are using this application. Christopher even showed her friend's profile who was doing really well in the leaderboard, and she finally felt that she should join the app to follow the trend and for the incentives of course. Christopher gave her a few tips to start with and how to earn more points on the app daily.

Parker being inspired to earn points and compete with her friends, downloads the application and joins Track-My-Waste. Parker, now being on board the application, wants to fit the use of this application in her schedule. She starts by setting alert notifications reminding her to log her waste and to perform daily activities. As suggested by Christopher she starts with small actions like regularly logging her waste and trying to segregate her waste. Her goal is to now earn more points on the application and eventually buy reusable cutlery for herself.

Parker slowly has started regularly logging her waste and heading towards her goal of collecting points to buy reusable cutlery. Meanwhile she is motivated by the positive feedback from the application and the praise she is getting by sharing her progress on social media. During the time she spends on the app while logging her activity, she reads articles on the harm our actions are causing to the environment.

She feels now that she is solely not using the application for the incentives and social media aspects, but is also understanding how important it is to be careful about the waste that we throw in the environment. Parker now takes time to segregate her waste, she doesn't have a compost bin at home, but carries her compostable waste once a week to the community composting area in Clemson University. She now feels more responsible as an electrical engineer willing to build an efficient electric car, and wants to include sustainability as an aspect when building one.

Parker is now a full-time user of the application, thanks to Christopher, and she spreads the message to everyone as much as possible and tries to be sustainable and updated with the latest environmental news using the app Track-My-Waste.

Combo 4: Peter Adams - Being Sustainable at a Restaurant [Chaitanya]

Peter Adams [Individually Sustainable]



Hard Facts

Peter lives in a city named Greenville in South Carolina. He is 24 years old, single and is studying Food Science and works as an employee in a dining hall whenever he is free. He is the President of a committee called "*Making the World Better*".

Interest and Values

Peter is a technology enthusiast and loves photography. Due to which he has knowledge about the latest cameras that have arrived in the market. He is also serious about fitness and does workout regularly and is very strict about his eating habits, diet. Even while eating outside in a restaurant he takes into consideration all this by inculcating low carb food in his meals.

He is a disciplined person and hates when people fail to dispose of the waste in a proper way which creates a dearth for sustainability. Under the assumption that Peter is a sustainable person, he also is an altruistic human being and loves to educate people with the knowledge that he has about waste whenever he goes to any public places.

He was mainly inspired and got an interest in sustainability because once he just saw one of his friends throwing waste on the road and not caring about it. At that moment he felt the need to make people aware about sustainability in a broader perspective. He also knew that, Knowing how to solve problems in creative ways is often one of the requirements for having a career in sustainability.

Computer Internet and TV use

Peter owns a MacBook 13 and an iPhone. He generally uses google chrome through his laptop as his primary browser to search for an article or perform other web intensive operations. He loves to watch movies on television in his leisure time while having a snack. He uses youtube to learn eclectic recipes as he is interested in trying different cuisines. He also learns to listen to music and uses Spotify's application to stream music online via the internet. He also makes use of a fitness tracking application which

connects with his fitness band wherein he can track his workout progress and schedules and heart rate using the internet.

For his academic and professional life too, he prefers his own laptop as it is more portable and can reply or compose emails easily from any location he resides in. He also uses an application called as slack on his laptop which is specific for his committee. As there are many group discussions, events planned in there and the dates are automatically stored in google calendar. And all those events are set up and diagrams or statistics of events can be shared to the whole group at once. Due to this he becomes creative enough to predict ways for the people to be more sustainable and pass this knowledge to others via internet using social media.

A Typical Day

- Peter generally starts his day by waking up early in the morning, at around 6 am and after his daily chores, he attends his classes from 8 am to 4 pm every Tuesday and Thursday.
- While attending classes, he has a habit to take down notes which he feels important from the academic perspective and then save those for future class. This habit of his is essential to get a profound understanding of the subject.
- After each class there is about an hour left for the other class to start. During that time, he takes lunch generally from a tiffin box which he carries from home and avoids to eat outside. But sometimes he goes to a food outlet or a restaurant if he is very hungry or has forgotten to bring the tiffin box.
- After lunch he attends the next class and finally, after the last class which ends at around 4 pm he goes to library and goes over the class notes which he made that day or sometimes he does his own research or just sits around.
- Then he goes to the gym at around 6 pm and exercises according to each day workout schedule which he has prepared.
- Now, during his free days which are Monday, Wednesday and Friday he wakes up a bit late around 7 am in the morning and goes to the gym at around 8 am to exercise.
- Then goes for his on campus job as a food service worker in Fresh Food Company in the campus itself to earn his living and has a shift from 10.30 am to 7 pm in the evening.
- After all this, he goes home, cooks his dinner and eats it while watching TV or listening to songs and stores the leftover food in the refrigerator.
- Generally during weekends, he attends the sustainability group meetings where he is the president of the group which includes a group of twenty members and

they discuss the current stage of the world due to wastage and predicts how they can mitigate it.

- Finally, at around 10 pm he goes to bed and sleeps well.

Future Goals

Peter's future goals would be to be successful enough to make the whole nation aware of how not managing waste is harmful. Before that, his primary goal would be to get a job as a Safety Inspector in a renowned company. Now, for this according to him, the main reason for it would be inculcation of moral values and responsible consumption and production of products too. He feels that, if the creation of waste would be minimum in a broader view then the other tasks like managing waste, tracking of waste would be a lot easier than it is currently. He also believes that the more the people are sustainable, the more healthier communities would live and this will also increase the overall environmental quality. According to him all of this should be taught to the people via conducting different events and drives, and also inculcating discipline and sustainability values in children at their early stages in life would prove to be helpful.

Scenario: Having dinner at a Restaurant

Peter, as we can see from the above reference, is an individually sustainable person and takes out of the box efforts to maintain and augment sustainability in many ways. Peter, after his class, is hungry and goes to a restaurant to eat something.

Here, as we know Peter is a very sustainable person. He has a very specific habit that he carries his own cutlery with him rather than using the plastic cutlery in the restaurants. This is because according to him, using plastic cutlery both increases the overall wastage (plastic is very costly to recycle) and is harmful to the environment.

So, considering a situation where Peter enters a restaurant, the first thing he does is go to the order counter and order a salad. He chooses a salad because he's conscious about his health. After ordering, he waits for his food to arrive and sees a boy beside him who is also waiting for his food to arrive, but he picks up on one unusual thing that annoys him -- the boy beside him takes a paper napkin, uses it, and instead of disposing it in the bin drops it on the floor casually and is negligent about it. After seeing this, Peter calls the boy and advises him in a very kind manner about the wrong thing which he did and makes him aware about how it's harmful. He pulls up Track-My-Waste to show him the harmful effects of neglecting waste. He shows him an article he read on the Social Wall of the application.

After some time, the cashier called out his name because his food was ready to be picked from the counter. Peter got his food. Afterwards, while he's eating his food, some of his friends visit the same restaurant and share the same couch with Peter to enjoy their food. As they are chatting, one of his friends notices that Peter is making use of his own cutlery for eating and curiously asks a question about why he does this. Here, Peter answers him about why it is advantageous to use private metal cutlery instead of disposable plastic cutlery and convinces him to do the same thing via sharing another article he read on Track-My-Waste.

While chatting, Peter convinces his friends to use the app and advises them to login and create a group so that he can educate them more by posting some of the interesting community events nearby or sharing pictures about their latest events via the event management system of the application. He also tells them how he posts his questions on the forum section inside the app so that he would be provided with answers, and shows them the news section of the app.

Finally, after all this fun chat and before leaving the restaurant, he opens the app again to log his waste for today. He got a reminder notification from the app to log his waste because he was at a restaurant. He shows his friends the simple process of logging waste and how he's rewarded points afterwards.. He flaunts about how he is at a very high position in the community leaderboard section in the application and has ample reward points too. This makes the whole conversation even more interesting, as his friends take particular interest in competition. As he left, he logged that he got friends interested in sustainability, and he's anticipating the point rewards once his friends sign up. While leaving the restaurant, Peter is happy as he was able to make his friends more sustainable, aware, and knowledgeable about sustainability than they were before.

Combo 5: Paula Martinez - Hosting an Event [Jeff]

Paula Martinez [influentially sustainable]



Hard Facts

Paula is a 29-year-old sustainability consultant working at The Sustainability Institute in North Charleston. Prior to working at the institute, she went to Clemson University for a degree in Industrial Engineering. While she was at Clemson, she met her now-husband Matthew—at the time, an Environmental Science student.

Interests and Values

Prior to meeting Matthew she wasn't all too interested in sustainability, but as she got to know him she picked up his environmentalist values. Becoming more and more concerned about the environment, she found herself trying to figure out ways she could play her part in making the world more sustainable.

On her own, she started to segregate and recycle her waste, avoid plastics, and drive less. She felt a lot of satisfaction when she started leading a more sustainable life. As her relationship with Matthew grew, the two of them decided they would challenge each other to be more sustainable. They'd always share with each other new ways they found to be sustainable, find activities they could do together to help the environment, and keep each other motivated. It wasn't too long until she became known as the eco-freak among her friends and family.

As she became more sustainability-oriented, she became increasingly frustrated with the general lack of sustainability efforts around her. She found that most of her fellow students didn't know how to be sustainable and that there was a severe lack of institutional efforts to promote sustainability. Being no stranger to attending and hosting events (she had a history of participating in industrial engineering events), she figured that she should start to host and attend events in order to spread awareness and build institutional support for sustainability. With Matthew by her side, she hosted several events and became renowned for her role as a student activist.

To put the icing on the cake, she even decided she would use her expertise in industrial engineering to promote sustainability--she wanted a career being a sustainability consultant, helping organizations minimize their carbon footprint.

Now that she's out of school and working as a sustainability consultant, she enjoys teaching others how they can be sustainable, coordinating environmental events in her community, and spending time with Matthew. Feeling like she's mostly minimized her carbon footprint, a lot of her focus now is in getting others to be more sustainable.

Computer, Smartphone, and Internet Use

Paula uses technology regularly in her day-to-day life. In her personal life, she uses her smartphone to keep up with her friends on social media; uses her computer to keep up with news and current events; uses various streaming services for tv, movies, and music; and uses the internet to stay active on various forums that she enjoys. She also uses the internet to find new ways that she and Matthew can be sustainable.

In her professional life, she mostly uses a computer. She communicates with clients via email and phone. Her workplace provides her various tools that let her run analytics on the carbon footprint of her clients and help optimize them. In her dead time, she uses her phone for social media and browse forums on her computer. If she's planning on hosting an event in the near-future, she'll check on the status of it in her dead time.

When she's doing community organizing or trying to teach others how to be sustainable, she uses various organizing tools online. She uses the internet to set up the event; uses email to reach out to those signed up for the event; and sets up a group chat if the event involves keeping track of volunteers. If the event she's hosting is an information session, she'll use the internet to provide those who signed up with informative resources.

A Typical Day

- Paula gets up at 7:00 am. She cooks breakfast for Matthew and herself, composts the leftovers, and then finishes getting ready for work. She talks to Matthew and browses social media until 8:45 am, then both of them carpool to work.
- When she gets to work, she checks her work email and responds to them. She then creates models and finds ways to optimize the environmental friendliness of her clients.

- At noon, she eats lunch. If she's scheduled to meet up with clients that day, she'll go out to eat lunch with her coworkers then go to the meeting; if she's not scheduled for a meeting that day, she'll eat a salad at the office.
- If she had a meeting that day, she'll head back to the office once she's finished; if she didn't have a meeting, she continues to get work done at the office. As the end of the work day nears, work starts to slow down and she has more dead time. In that dead time, she browses social media and forums, checks on the status of events she's hosting, or throws together flyers and newsletters for people to learn about sustainability.
- Once the work day ends, Matthew picks her up. If an event is scheduled for the evening, they'll drive out to the event together; if they don't have an event scheduled, they'll either go out for a few hours and have fun, or they'll go straight home. If they're going out, they try to make sure that the activity they're doing is sustainable in some form. If they go home, they usually do some house upkeep, watch Netflix, browse social media, and maybe invite some friends over. She also sets up events and creates resources that help others become more sustainable when she's at home.
- As the night goes on, she cooks dinner with Matthew and composts the leftovers.
- She then gets ready for bed and goes to sleep for the night.

Future Goals

Paula has a grand vision of a more sustainable world. Her long-term life goal is to make a significant impact on the state of sustainability in the world. For her career, she eventually wants to launch a sustainability consultant firm of her own. In the short-term, she wants to get her neighborhood to start a community compost pile, create community recycling bins, and hold monthly meetings with her neighbors to promote sustainability. She's also trying to get solar panels put on her roof so that she can finally kick her reliance on unsustainable energy sources at home.

Scenario: Hosting an Event

Paula, as described above, is the type of person to get involved with her community in sustainability efforts. Just today, she got word that a proposal that allows fracking in her county was approved. Infuriated by the news, she feels driven to start a protest. In order to set up the protest, she's going to create an event and start spreading the word about it.

The first thing Paula does is open up her Track-My-Waste app and check the local events page to see if any other like-minded activists already set up a protest. She found no scheduled protests, so she went to the page that allows her to create events.

Once on the event creation page, she fills in all of the event fields, naming the event "Protest: Frick the Frackers"; writing up a description detailing why fracking is a serious concern and what she wants to do at the protest; setting the location of the protest to the South Carolina State House in Columbia, and the date and time to Friday, all day. She presses the create button and is brought to the event management page.

On the event management page, she double checks that all of the event details are correct. She notices a typo in the event description and fixes it. All of the details now being correct, she's ready to start spreading the word about the event. The first thing she does is share it on social media--Track-My-Waste automatically posted the event on her wall when the event was created, but she wants to broaden her base. She presses the share button on the event management page and shares the event on all of her favorite social media platforms. Once done posting about it, she realizes that she also wants to get her friends in on the event, so she presses the invite friends button and sends an event invitation out to all of her friends on Track-My-Waste.

Because it's Tuesday at the time of setting up the event, she has a few days to wait. In the days leading up to the event, she frequently checks the event management page to check how many people signed up. She also sends out various messages to the people who signed up in an attempt to keep them updated and informed, as well as to boost morale and provide encouragement. She also goes to the attendee list and views some of their profiles so that she can get an idea of what the people who are coming are like.

On Thursday, she sends out a message to all of the volunteers signed up as a friendly reminder (on top of the reminder notifications sent out by the app automatically) and to provide some words of encouragement.

On protest day, the app sends Paula a reminder notification about the event. She gets to the State House early (8:00 AM). When she arrives, she finds a good spot to protest and sends out a mass message to all of the scheduled attendees via Track-My-Waste, providing details and a picture of where she's at. She receives messages from people if they are confused.

As people arrive, they check in to the event on their events page. Paula gets notifications as people check in and she routinely checks the number of attendees that

have arrived via the event management page. She gets excited as more and more attendees show up.

During the protest, Paula routinely sends messages out to the event chat to make sure everyone's alright and that there's no issues. If there's an issue, she makes further contact with the volunteer having the issue to resolve it. When she's not doing event management duties, she takes several pictures and makes several friends with her fellow protestors, adding her pictures to the event gallery and adding new friends to her friends list on Track-My-Waste. The volunteers also take pictures, which are added to the event gallery.

As the day goes on, people get hungry. Paula makes some sustainable restaurant suggestions in the event chat, and the attendees either go to those restaurants or find a different eco-friendly restaurant via Track-My-Waste.

As the day latens, people start to get tired and check out for the day. The volunteers check out of the event on their app and Paula receives notifications as they do so. She checks the event management page to keep track of the total amount of people checked out. When the volunteers check out, they are delighted to find rewards points added to their account.

Paula stays at the protest until everyone that checked in has checked out. Having spent the whole day with volunteers working to promote sustainability, she feels elated. She loves getting to work with others on things she cares deeply about. Once everyone is checked out, she ends the event on the event management page. She's then prompted to fill out a quick survey regarding how the event went and what was done and sends out a follow-up message to everyone that attended the event, expressing her gratification. She then browses through the event gallery on her event history page, choosing images to share on her wall and social media. Once she's done perusing the gallery, she remembers that she gained a bunch of points for hosting the event and decides to check her position on the Track-My-Waste community leaderboard. She sees that she was bumped up a position on the leaderboard and feels even happier!

By the time she's finished with the event for the day, it's pretty late at night. She's hungry, but Track-My-Waste gives her a recommendation for a highly-rated, eco-friendly restaurant. She goes out to the restaurant and enjoys a delicious meal, then she heads back home

A few days after the event ends, she learns that her protest had a real impact—the fracking approval was challenged and vetoed after immense pressure from concerned citizens. Paula is deeply excited by the news, but she's worried that the veto won't last that long. She has to keep on organizing and volunteering to prevent fracking for the time being, but she tries to view it as an opportunity to meet more people.

Reflection

Our grand vision involves all of the various types of users working together to be more sustainable. In the following, each persona is going to take part in a community event where they discuss ways to be sustainable. The processes that take place before, during, and after the event map onto the three parts of the consolidated vision.

To start, Paula creates an information session using the Community Event Manager. She set the date and time for the information session to be Friday at 6:30 PM. Having set up community events before, like her fracking protest, she's a pro at managing events. She uses the Community Event Manager to send out posts on her social media and invite some of her friends that she usually works with on Track-My-Waste. She really wants to teach others about how they can be sustainable.

Before Paula set up the event, both Peter and Parker go out to a restaurant. Coincidentally, they ended up at the same restaurant. The restaurant they went to was recommended to them by the Track-My-Waste recommendation system. Parker being relatively new to sustainability as she has just started using Track-My-Waste thanks to a recommendation by a friend, she's a bit careless when it comes to sustainability. Almost like a flashback to his last time at a restaurant, Peter picks up on Parker's inexperience and decides to talk to her. They have a fruitful conversation shared over a tasty lunch, and add each other as friends on Track-My-Waste. They discuss various news articles they've read on their news feeds, some of their favorite recommendations they've gotten from Track-My-Waste, and hit it off as friends. When they're finished with their meals, they do as Track-My-Waste reminded them to and log their meals using the waste log. As they leave, Peter makes the suggestion that they go out to an event together, and Parker agrees and says that it would be fun.

After Paula set up the information session, both Peter and Parker got a notification about the event. They messaged each other as soon as they got the event notification and decided it would be the event they go to together. They both see it as a perfect opportunity to learn.

Happening after the event was created, Zara and Sheryl end up deciding that they want to go out to an event. These decisions are made independently of one another. Zara being a sustainability enthusiast and having just felt the gratification of getting someone on board with Track-My-Waste, she figures that she wants to get more people

involved in sustainability. To do so, she decides to join an event. She browses the event page and sees that an information session is available--she figures that it would be a great community event to attend as she could learn ways to get others into sustainability and potentially learn something new. Sheryl progressing in her sustainable lifestyle thanks to finding Track-My-Waste and following the recommendations, she gets a recommendation to join a community event. She clicks on the notification, reads about the event and learns that it's an information session, and signs up for the event--she sees it as a perfect opportunity to learn about sustainability and gain points.

As Zara, Sheryl, Parker, and Peter sign up for the event, Paula is notified and gets excited. She sends out messages to each of them giving them a welcome and introduction. She talks with Zara a lot as she finds her interest in sustainability something of interest. As more people join the event and the event nears, she reaches out to the attendees and sends out reminders.

On event day, Paula goes out to the location designated for the event and waits for people to arrive. As everyone arrives, they check in to the event using the app. Paula takes some pictures of the crowd and adds it to the gallery as she waits for everyone to arrive. Parker and Peter end up taking a recommendation from Track-My-Waste and car pool together to the event, sitting together at the event as well. Zara and Sheryl find spots in the crowd when they arrive.

Once everyone arrives, the event starts. It's game time for Paula. She delivers her information session, talking to the crowd about exciting new research in sustainability, some of the current events going on, and new, fun ways to be sustainable. Everyone has a great time. Zara, Sheryl, Peter, Parker, and everyone else all learned a lot and made a lot of friends, adding new friends to their friends list on Track-My-Waste.

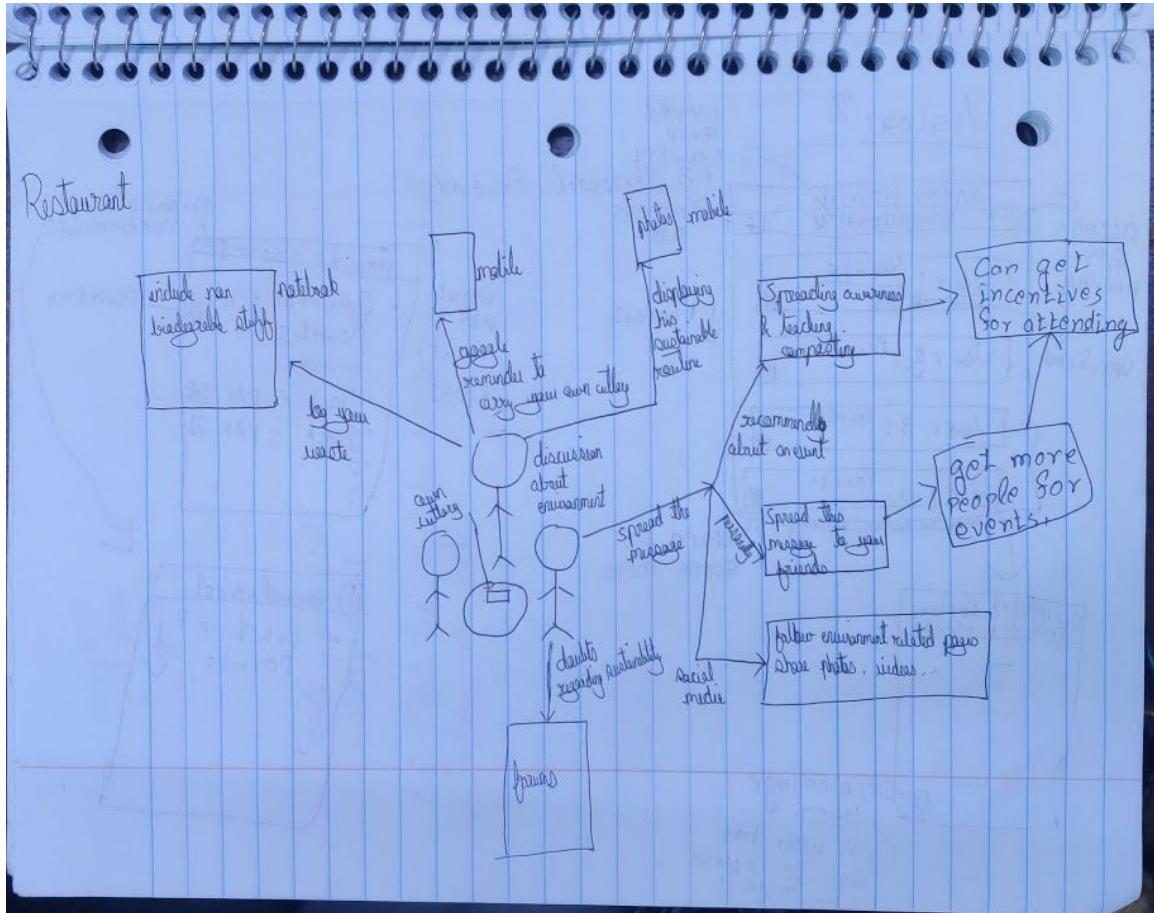
When Paula is finished with the event, she ends the event with the event manager and cleans up with a group of people that decided to help out.

Following the event end, points are rewarded to Paula and all of the attendees. Most everyone checks their place on the leaderboard after receiving points for the event. Paula realizes that she finally has enough points for a sustainably-sourced hoodie on the rewards shop, so she goes to the rewards shop and buys it with her points. Feeling great about the night thus far, she donates to one of her favorite NGOs Greenpeace.

Paula, Zara, and Sheryl all go home, but Peter and Parker end up picking up food on the way home. Peter drops Parker off at her house and drives back home. Both of them enjoy their meals and end up throwing out their leftovers and waste as per the recommendations provided to them by Track-My-Waste

Appendix

Vision 1: Hanging Out at a Restaurant



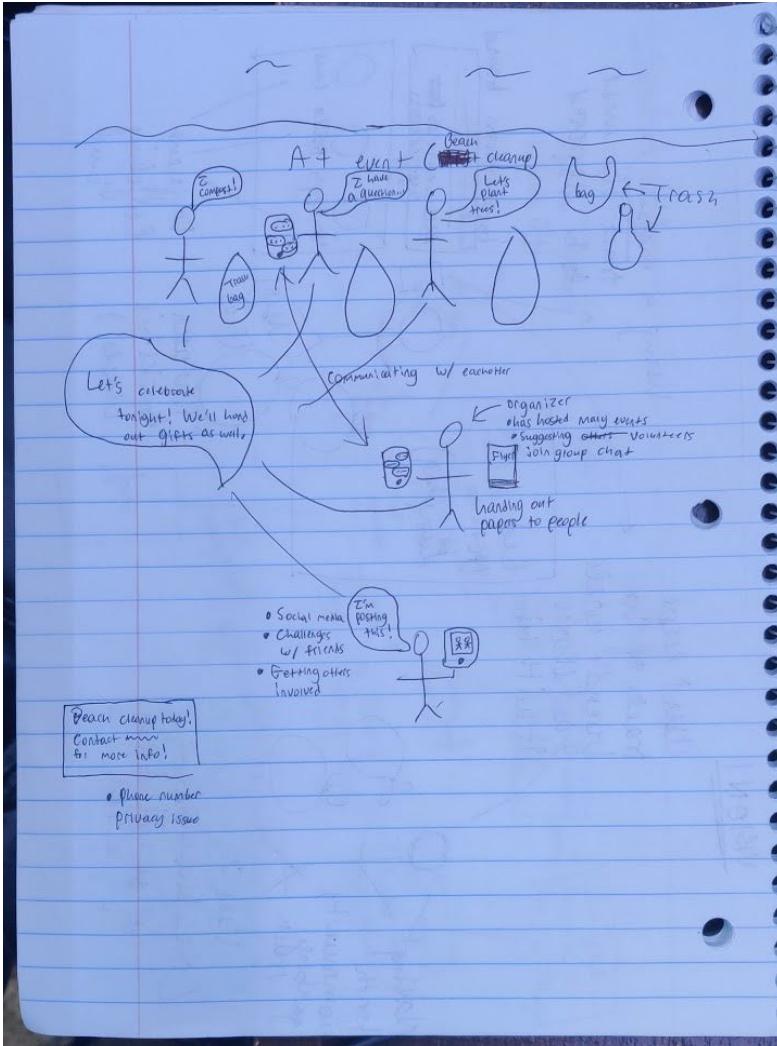
Hot Ideas:

- MyFitnessPal but for carbon footprint
- Smart, targeted, and expressive notifications
- Sustainability points and shop
- Mobilize.us except easier
- Tailored recommendations
- Sustainability guides
- Sustainability as a social activity

Issues:

- People can get overwhelmed with notifications
- People are forgetful

Vision 2: Cleaning Up a Beach



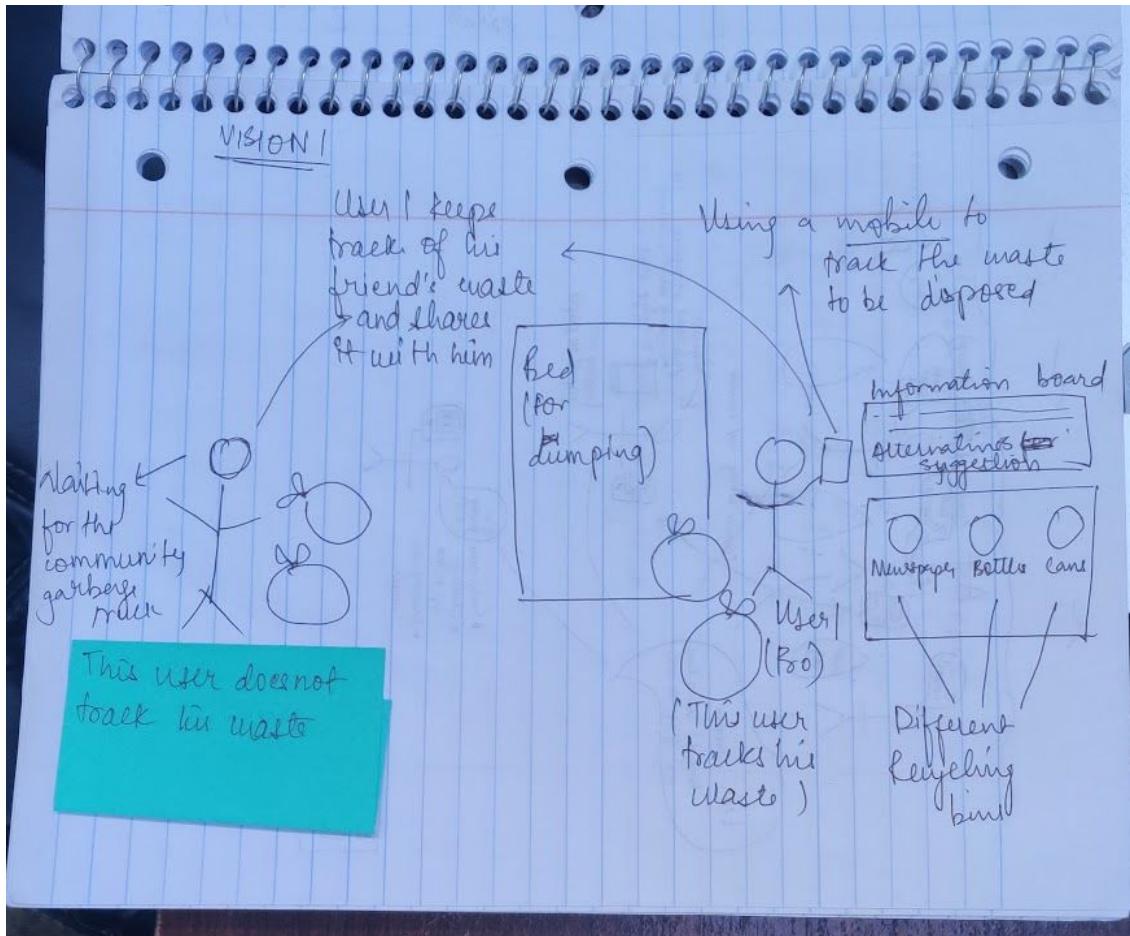
Hot Ideas:

- Sustainability points and shop
- Sustainability leaderboard
- Mobilize.us except easier
- Tailored recommendations
- Sustainability guides
- Sustainability as a social activity

Issues:

- People have different definitions of sustainability
- People have concerns about privacy

Vision 3: Throwing Out Waste



Hot Ideas:

- MyFitnessPal but for carbon footprint
- Tailored recommendations
- Sustainability guides
- Sustainability as a social activity

Issues:

- People are forgetful

Unaddressed Hot Ideas

Issues:

- People can lie (verification measures required)

Hot Ideas: all are covered