



Earthmate

"How might we empower teens to take small actions steps towards climate change by activating their eco-empathy."

8.30.21-11.19.21

—**Project Type:** Design Challenge

My Role: A team project where I contributed in all 5 areas of Design Thinking and the areas outlined below.

Project Summary:

Earthmate is a mobile & online prototype designed to connect time in nature with empathetic climate actions. It motivates & offers hope by connecting users with active community leaders (hidden gems), provides opportunities to perform good actions in the environment so users can be empathetic and encouraged to contribute while boosting their sense of well being. Earthmate offers trustworthy, comprehensive and easily accessible climate content all in one place.

Target and Challenge:

The audience for this project focused on teens. Teens feel anxious about climate change, would like to learn more about it, but don't know where to turn for reliable information and express uncertainty in affecting change. The main requirements were connection, leadership and guided tools that encourage actions in the environment to cultivate eco-empathy. Earthmate needed to be a central place with trusted climate information for busy and distracted teens.

Solutions:

I. Research

- Our desktop research encompassed over 200 primary and secondary sources on climate change, teen climate anxiety, mental health, nonprofits working for climate, Yale school of medicine, business and scholarly literature and social media outlets. For example:
<https://docs.google.com/document/d/1zoBgs6wzOnUq1BXO8EfxltOH1Dm0CaSAy4D4MtGbmzY/edit?usp=sharing>
- We conducted structured zoom interviews with 6 high-school and college students to understand the problem space and their overall experience & engagement in nature, community involvements and thoughts about the climate. This helped us to explore different problems & go deep down into a few major issues that they currently face. For example:
<https://docs.google.com/document/d/1OLFDe1mZcwNqbl5n6U6ZeT42k9khld40/edit?usp=sharing&oid=117013029404873804774&rtpof=true&sd=true>
- Using an affinity diagram we organized the data adopting a bottom up approach in which the data informed grouping/themes based on their relationships. Ex: "Climate Actions", "Connections in Nature"...
- We developed two Personas to understand background, lifestyle and user needs. The persona I worked on is Boaz. A 17 yr old who lives in the city, with family roots in rural area, wants to make a difference in community, but doesn't know how, notices that climate change has more negative than positive impacts on people of color, is anxious about climate, but feels

calm and centered in nature, doesn't trust government sources and wants verified sources of information.

- We then utilized an empathy map, a visual tool to better understand and pinpoint four key aspects of behavior demonstrated in the collected data (Says, does, thinks, feels, pains & gains).
- We utilized these insights to generate insight & pov statements to frame "how might we" questions allowing for deeper data analysis to define a problem statement centered around our participants' needs.

Questions & Prompts

Thinking about the resources you use at home, walk me through a normal day for you.

Please describe a memorable experience you had in nature. When was that?

Would you say that was a negative or positive experience?

I'd love to know who you consider very knowledgeable about climate change?

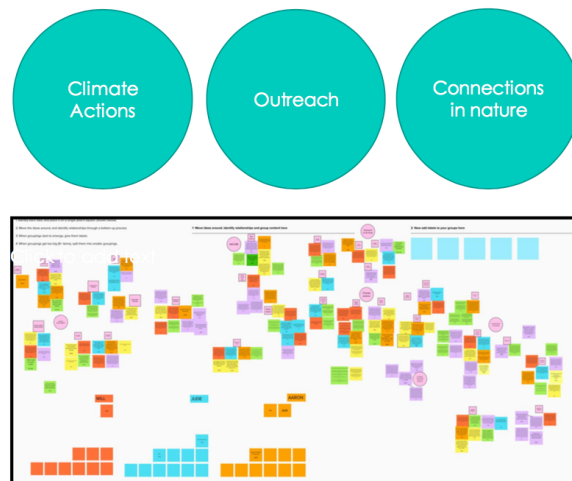
Affinity Diagram

Negative Action: "We drove past a dead fox. I'm gonna assume the papermill fumes caused it to die."

Positive Action: "Getting rid of papermills that increase air pollution"

-Xavier, 17yrs old

- Organize ideas
- Gain insights
- Understand interviewees



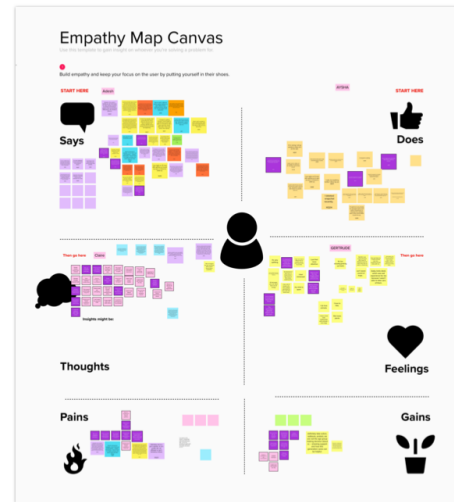
Empathy Map

Does: "I use paper bags which we save and use them to contain the recyclables."

Pains: "People say they care about things but don't do anything."

Gains: "Nature brings calm, reflection and awareness."

- Organize ideas
- Gain insights
- Understand interviewees



Boaz (Friends Call Him Z)



"We need to step up our game."

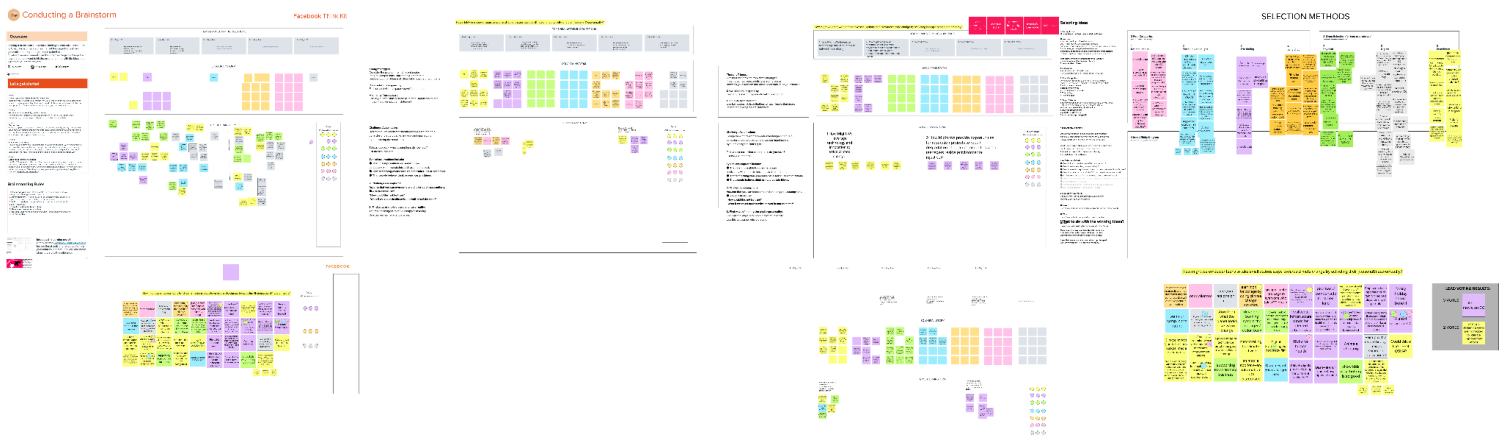
"I just like to do something rather than doing nothing on autopilot. I like to be more of an active person."

Problems

<p>Lack meaningful experiences in nature to cultivate eco-empathy and encourage action.</p> <p style="text-align: center;">↓ 1</p>	<p>Disconnection to active leaders/ hidden gems in their communities.</p> <p style="text-align: center;">↓ 2</p>	<p>Trustworthy, comprehensive and easily accessible climate content is a concern for busy & distracted teens.</p> <p style="text-align: center;">↓ 3</p>
<p>How might we provide opportunities for teens to perform good actions in the environment so they can be empathetic and encouraged to contribute?</p>	<p>How might we motivate and give hope to teens by connecting them with hidden gems?</p>	<p>How might we create a one-stop climate change information resource for busy teens seeking trusted technology?</p>

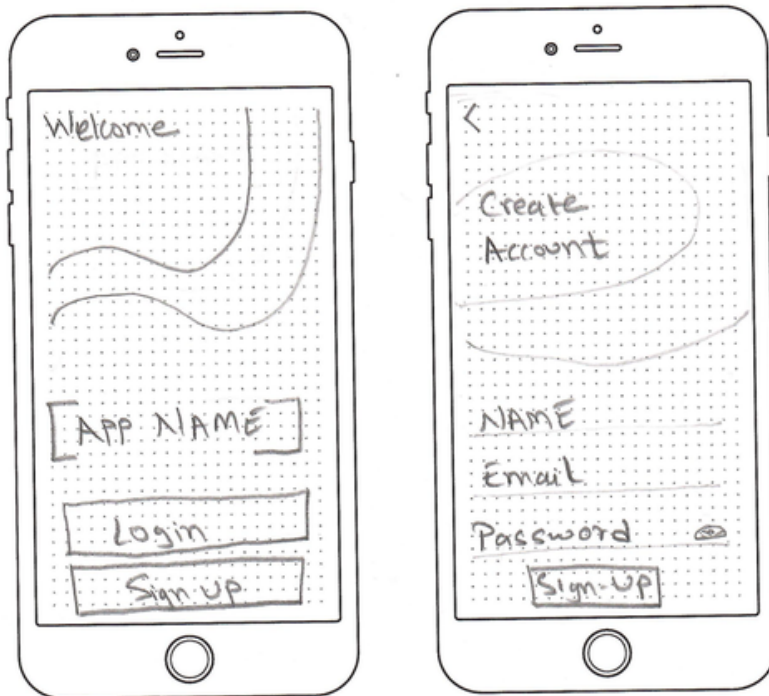
II. Ideation

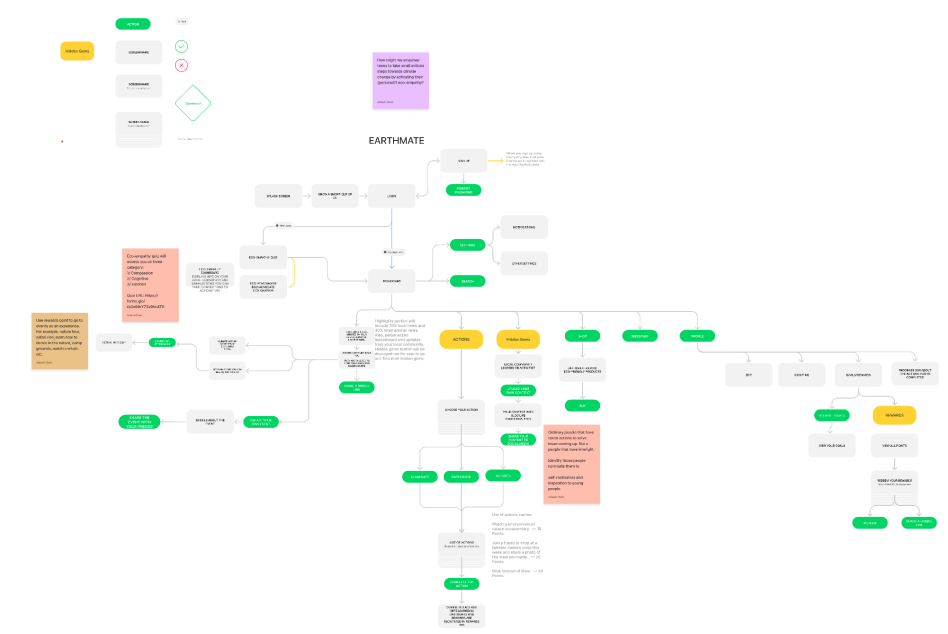
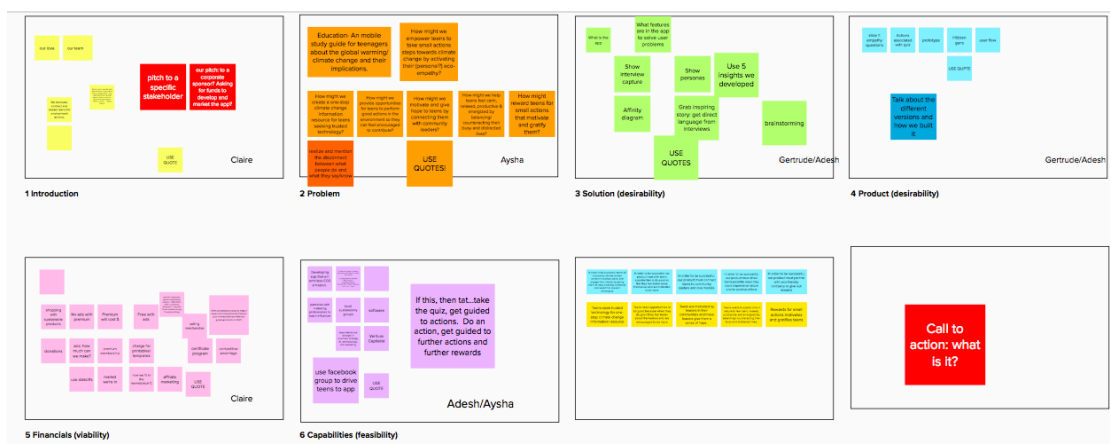
- We conducted solo and group brainstorm sessions to generate ideas from “how might we questions” to solve user problems, grouping analogous ideas, challenging assumptions and utilizing voting selection methods to converge and narrow ideas.



III. Prototype and Testing

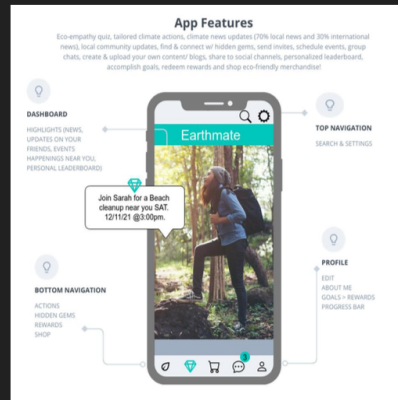
- To ensure we were creating a solution that is desirable, feasible and viable we produced a rapid mock-up prototype, viability assessment and business model canvas.
- We created a storyboard to test user feedback, gathered and analyzed by using a feedback capture grid.
- We created a website, mobile landing page (see below) and facebook group for maximum target audience reach.
- Website: <https://shah0150.github.io/earthmate/>
- Facebook: <https://xd.adobe.com/view/19059117-e527-4c52-b436-c6069b4534c8-4c56/>





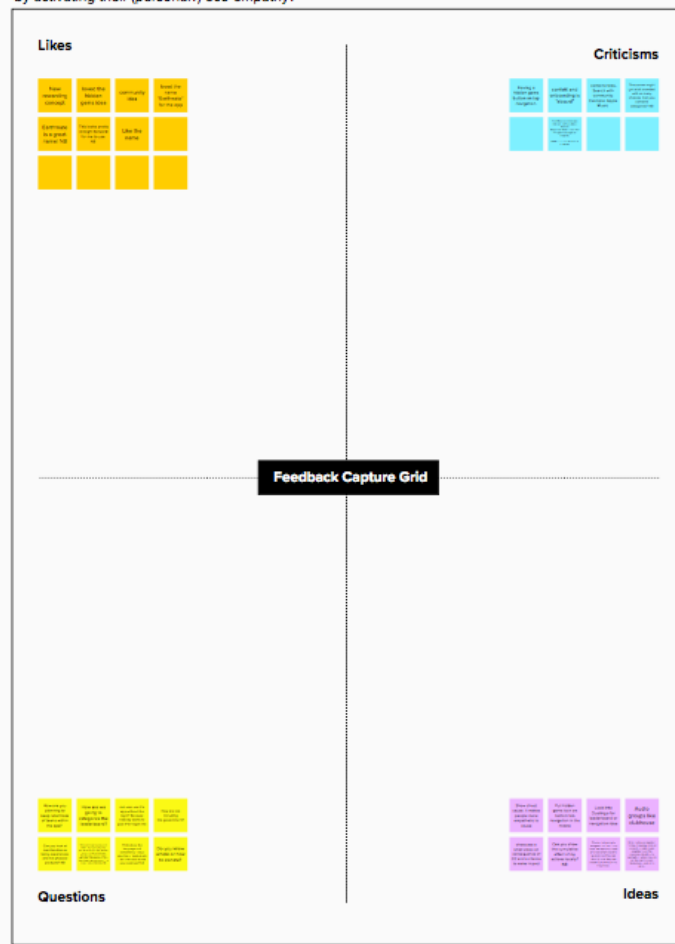
Solutions

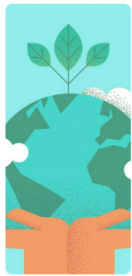
- Name of the App
 - Earthmate
- List of unique features the Earthmate's mobile application can do?
 - Eco-empathy quiz
 - Hidden Gems
 - Small unique actions
 - Rewards
- Facebook group



1 Feedback Capture Grid

The design challenge is How might we empower teens to take small actions steps towards climate change by activating their (personal?) eco-empathy?

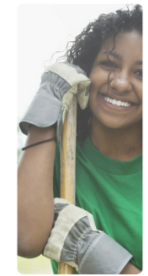




Content
Trustworthy, comprehensive and easily accessible climate content.



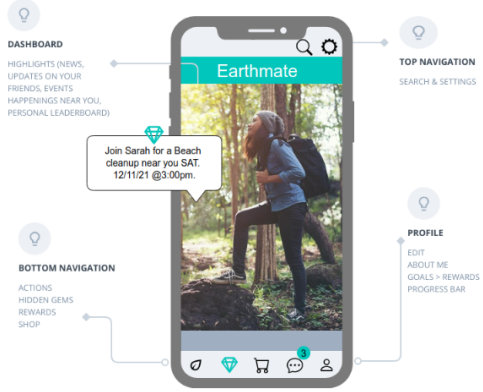
Connection
Join active environmental leaders and role models, connect w/ friends in group chats, schedule and participate in events.



Action
Meaningful experiences in nature to cultivate eco-empathy and encourage action.

App Features

Eco-empathy quiz, tailored climate actions, climate news updates (70% local news and 30% international news), local community updates, find & connect w/ hidden gems, send invites, schedule events, group chats, create & upload your own content/ blogs, share to social channels, personalized leaderboard, accomplish goals, redeem rewards and shop eco-friendly merchandise!



[See full list of features](#)

What People Are Saying about Earthmate:

I love being part of a community of leaders and likeminded people who want to improve the environment!

Treesarethebest
@treesarethebest

The empathy quiz has really made me think more about my contributions, the actions show me how easy it is to start today and the rewards are a great bonus!

Anna Copeland
@acopeland



Reflection:

The original design problem began with each participant offering 2-3 design challenges based around a few presets. The design challenge vote won by colleagues was “A mobile study guide for teens about climate change and their implications”. The assumed mobile app idea resulted in deducted grading that ultimately landed with that result. Though hesitant with this wicked problem and the only participant to not select this challenge I forged ahead. We know climate change is an issue for everyone on earth and I wasn’t jiving with teens being the forerunning protagonists of this massive problem. There was an onslaught of data coming forth in all areas of climate issues from carbon emissions, conservation, pollution, global warming, etc. and the problem seemed to get bigger before it got smaller. Since there are so many areas to tackle, I questioned if we would be able to pinpoint one area since solving all climate problems was not going to be achievable. What helped calm my overwhelm was when I began to do the research myself. I allowed the research to guide me into areas that I wasn’t aware were seriously affecting the considered user group. It was when I discovered the term “eco-anxiety” I saw the real problem to construct a design challenge around. A term circulating social media with supporting scholarly literature that helped me see the light and come on board with connecting teens and climate. Instead of what felt like a forced process of taking a known global issue and connecting it to a group we were able to extract a problem from the user group itself and expound upon it within this design challenge. This discovery then led to the focus of counteracting eco-anxiety with eco-empathy.

Conclusion:

The data that drove this research was connections in nature driven by empathetic actions creating solutions for climate change. The discoveries unearthed with our interviewees really made this project a success. We interviewed such a great group of teens involved in nature and their local communities with concerns and constructive criticisms about climate change. I’m especially happy with the mobile landing page prototype I designed. The app is by no means finished and would need to go through more user testing, user feedback and iterations before launching. I foresee this mobile app as an invaluable tool to help steer beginner to experienced climate activists to better connections in their communities and involvement in small to large climate actions, supported by leaders, helping to grow to more widespread impacts. The running thread will be activating empathy. I firmly believe that knowledge and awareness supported by everyday small actions can cultivate empathy towards good deeds in the environment and when good deeds are performed they result in a two-fold reward that can build a chain reaction in local & global communities.