## EcoKick

Ngoc B. (Manager)
Jonathan L. (Designer)
Eric H. (Engineer)

## Introduction

EcoKick strives to promote environmental and social impact through a crowdfunding platform for sustainable actions that enables people to "pay it forward".

People genuinely want to have a positive impact on the world but may not know how, may not have the means to, or feel uninclined to because they are unable to visualize their impact. EcoKick empowers action by enabling individuals to start campaigns for sustainable actions (such as biking to work everyday) that people can fund and then donate the money toward a social cause or charity the individual cares about (such as Make A Wish). EcoKick helps people share their actions and see what others are doing, set and see their progress toward a sustainability goal, and finally pay it forward by contributing to a cause.
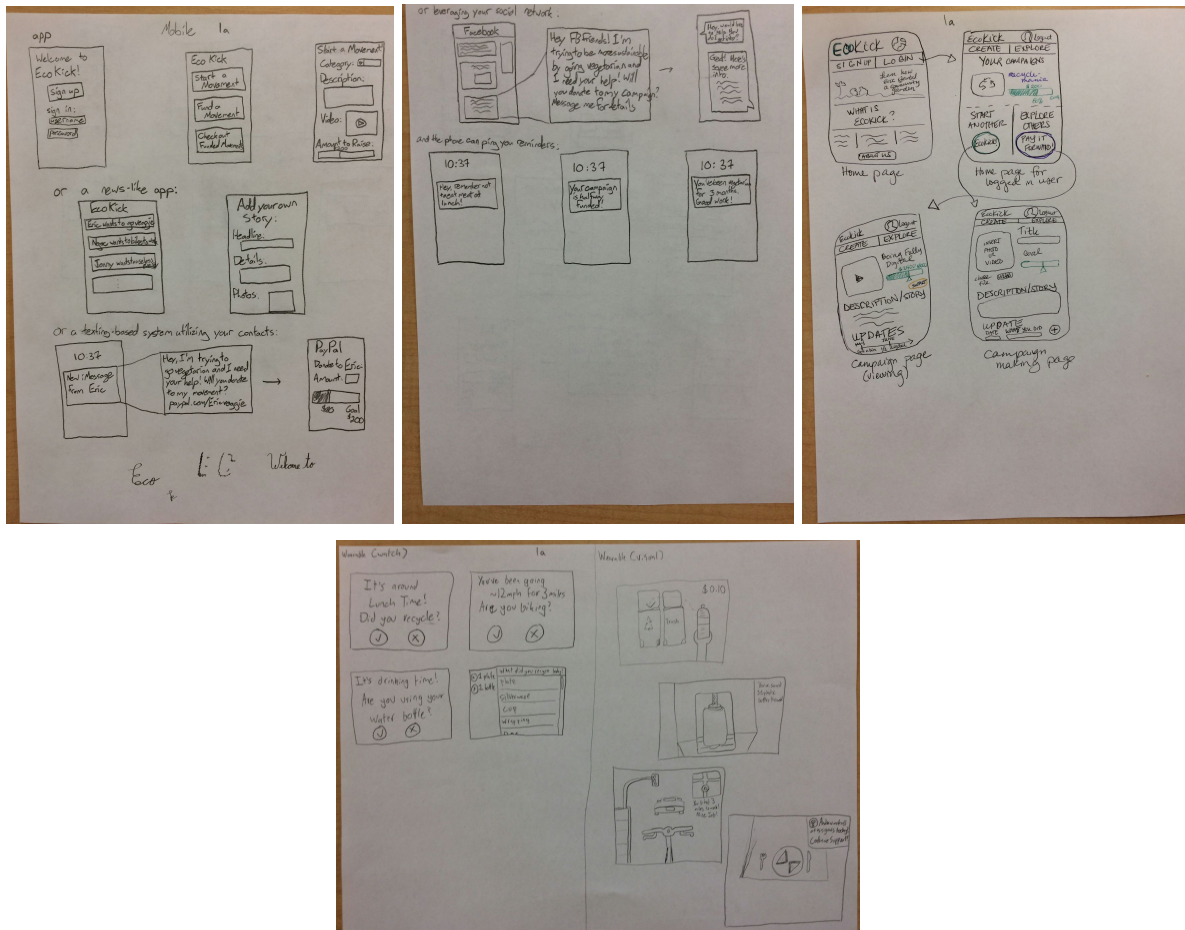
## Sketches



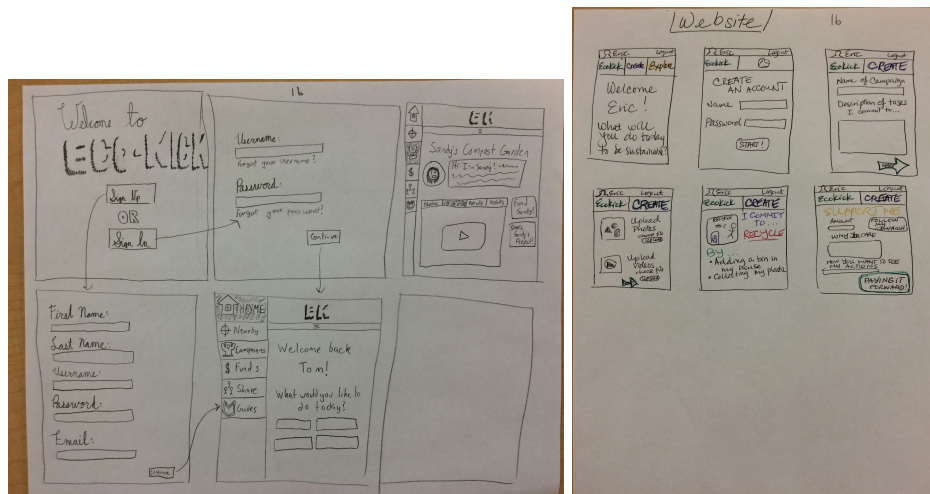*Fig. 1: Initial design sketches and ideas for a variety of interfaces*

*Fig. 2: Focused designs for website and mobile interfaces*

### Selected Interface Design

We chose to storyboard and prototype out the tasks of creating a new campaign, donating to a campaign, and creating a movement (combining campaigns).  We chose the format of an app because it's easier to use and interact with an app, and it's more likely that people in a mobile-centric world will interact with an app than a website or something else.  We needed to design for an electronic format because content is being dynamically generated and changing constantly, and it's much easier to host that information on a server and dynamically serve up information as it's requested than to be constantly updating several physical locations all the time.  At that point, the decision was between a mobile-centric option and a desktop-centric one, and as mentioned before people are increasingly tending toward using apps and mobile technologies. In addition, a mobile platform makes it easy to integrate with other forms of social media -- which is vital to our app because it is all about getting people to fund campaigns and start movements.

Our specific interface design was chosen because it is easy to interact with and easy to accomplish the tasks associated with the app.  Our design goal was to make it as simple as possible to "flow" through the states of any particular task, and not to provide any information that wasn't essential to the user so as not to clutter and confuse.  To that end, we tried to make titles and information clear and intuitive, and make it easy for the user to decide what to press between a relatively small set of possible buttons.
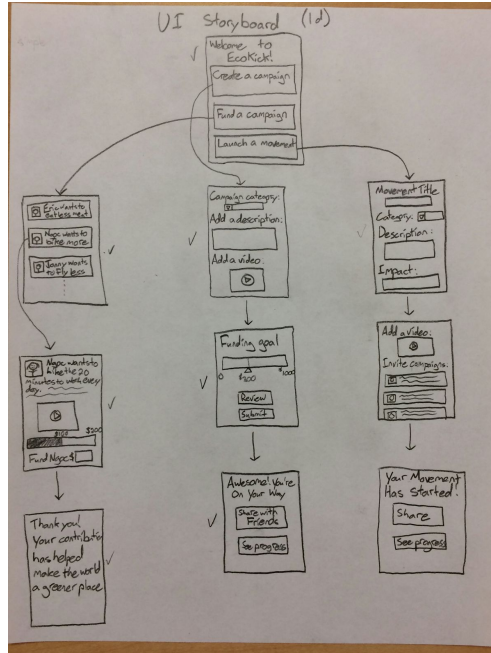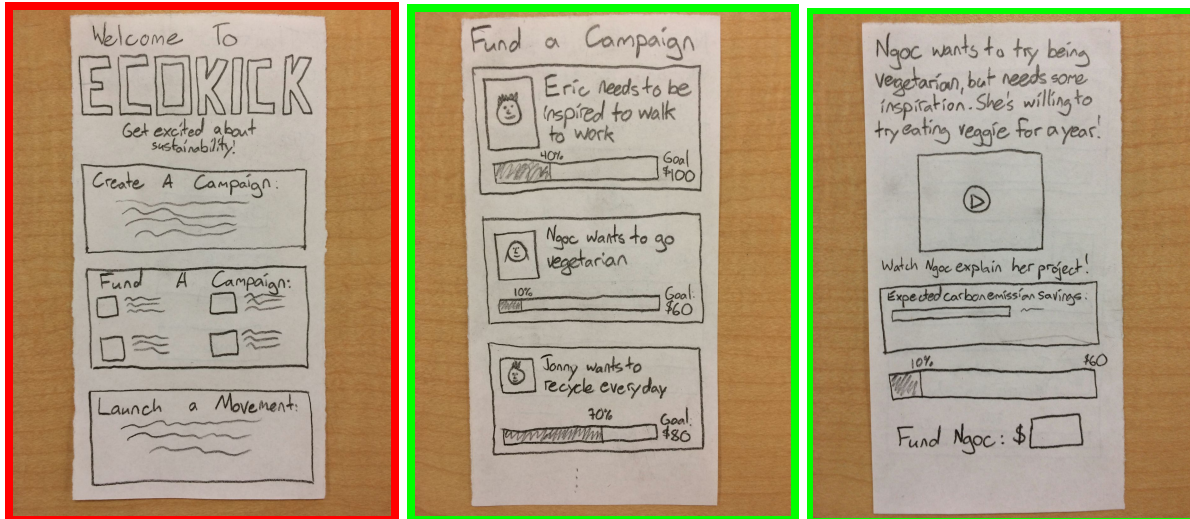
*Fig. 3: UI storyboard for chosen interface: mobile. The left column represents the task flow for funding a campaign, the middle for creating a campaign, and the right for creating a movement.*
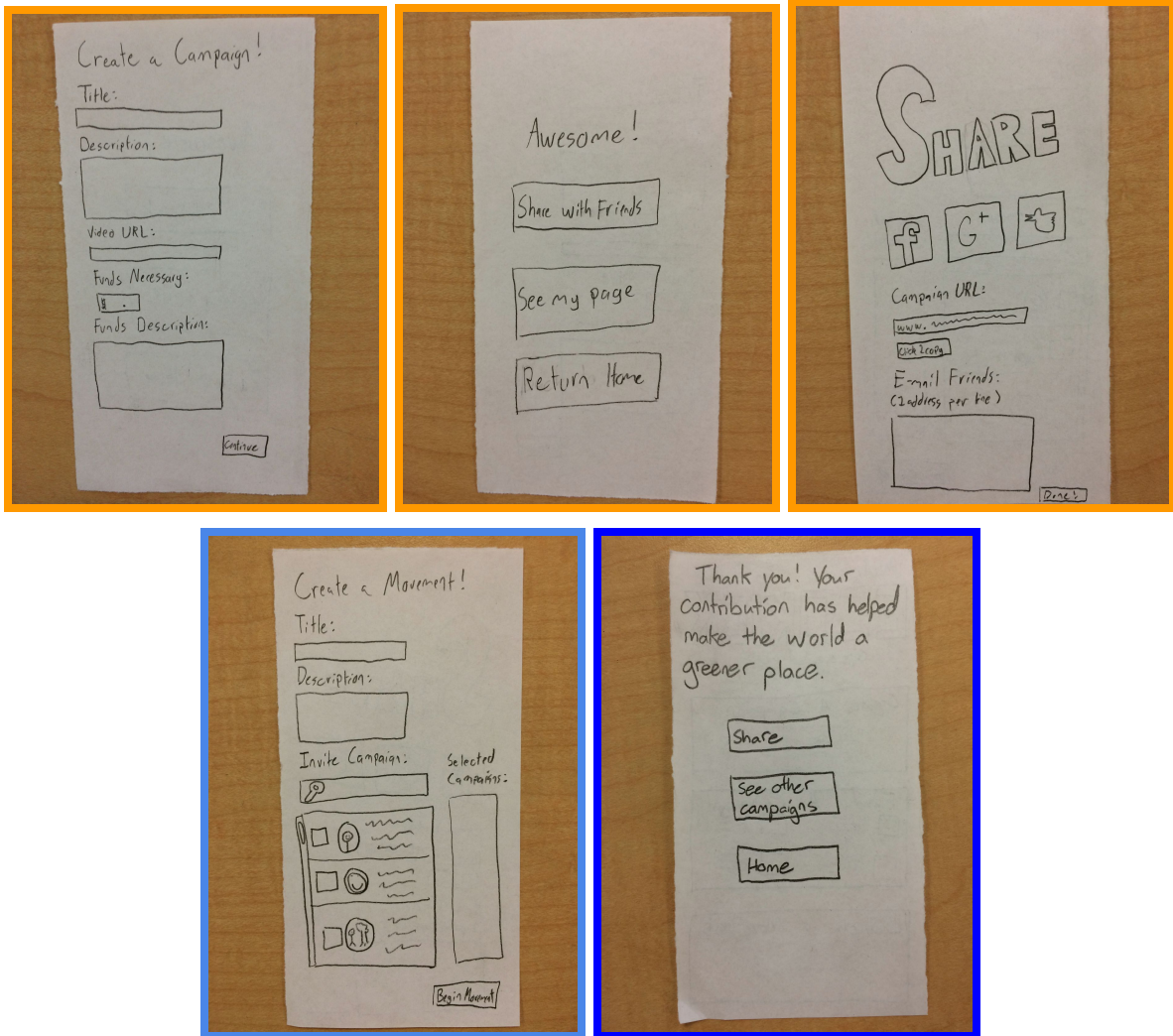
## Prototype Description

*Fig. 4: App prototype pages. Participants clicked or scrolled to select and change screens, and talked through the typing of information into the app itself*

Our low-fi prototype allows people to carry out the three tasks from the landing page (red screen): make a new campaign for funding (orange screens), fund a campaign (green screens), and find a way to group campaigns for increased sustainable action (blue screens). We decided to focus on these three tasks by making them the focus of our original landing page. Each option led to a designated page with the information we thought would be crucial towards informing a funder on the project they wanted to fund. For the funding a campaign, we wanted to find a way to give users quick access to information while providing them with a sense of who they were donating to. Once a project was chosen, we tried to make the campaign creator relatable with a video which when clicking, would prompt Ngoc to explain her project and what she wanted. Creating a campaign focused on someone being able to add their own information and media to a new campaign project and give funders the appropriate information.

Finally, launching a movement allowed you to make a general movement, and invite people who seem to have similar interests to your own. This would allow for multiple campaigns to come together and combine their efforts for an increased monetary pool. We hoped to also keep the sidebar to the right populated to give you an idea of who you had invited. We created two pages for successfully creating a movement/campaign and another for funding a campaign. Finally, we made a general sharing page connected to social media as well as an easy to access link for copying and pasting. We hoped that people would be able to add email addresses so that we could easily contact their friends for them. Everything was touch input directed except for the video which would link to Ngoc. The user can operate by clicking on any boxed link and go to another page.

## Method

### Participants

We wanted to select a diverse array of participants who reflected our target audience (young adults who are interested in social and/or environmental impact). We also wanted people who had varying expertise in environmental issues, technology, and design. To do so, we recruited the participants by going to Tresidder and randomly asking people to participate; we compensated them by offering people a Starbucks gift card.

The first participant is a recent alum who we met at Tresidder who is a PHD candidate Management Science and Engineering and has a deep understanding of incentives. The second participant works for a large tech company and is a frequent user of tech products. The last participant is a Stanford Senior who is very involved environmental organizations. The range of age, expertise, and involvement with social impact amongst our participants was important to find out what works and what doesn't with our app.

### Environment

We aimed to mimic the setting in which people would use our app (in a comfortable place). We tried to make it as comfortable as possible by choosing a semi quiet place near Tresidder with a couch and a table.

### Tasks

We decided that funding a campaign would be our simple task since all a user needs to do is browse, decide on a value, and then input a method of payment. The only information needed would be personal and browsing takes up the majority of the task.

For creating a campaign, the task required much more thought than funding a campaign. Users could campaign for different reasons or make up any reason for campaigning. We hoped that the freedom of the page would allow people to choose whatever they deemed the most useful for their personal gain. The task itself is more involved than the previous since individuals have to fill out a form, upload media, and set a funding goal.

Launching a movement was our complex task because like the medium task, it required a lot of user consideration but additionally, we expected users to compare their desired outcome to the other provided campaigns and choose which people might want to

join their campaign. Therefore, they had to not only consider their own campaign but how it could integrate into the campaigns of others.

*Procedure*

To carry out our testing, we had designated roles: Eric was the demonstrator and facilitator, Jonny was the human application, and Ngoc was the note taker. We practiced our testing procedure a few times on close friends to make sure we were comfortable with our script and so that we were testing what we wanted feedback on. All of our testing materials and data can be found in the appendix.

The testing process began by introducing ourselves and the idea. We then demonstrated the three tasks to give people an idea of how the prototype works and what they can do with the platform. After, we asked the participant to simply explore the app -- thinking aloud as they do so in order for us to capture their experience. We asked people to try out each of our tasks and observed closely as the participant used the app. Once they were finished, we asked them the list of questions on three test measure areas: usability, functionality, and visual appeal. At the end, we thanked the participant and gave them the gift card. To prepare for the next participant, we resetted the app for the next test.

*Test Measures*

We wanted to focus on three main things for our test measures. Usability, visual appeal, and Functionality. For Usability, we wanted to see how easily the users could complete our designated tasks. We wanted to know if they could easily distinguish campaigns from movements or how to invite friends and provide their own personal information. We also wanted to see if it was intuitive to jump from task to task. In terms of visual appeal, we wanted to know how much they enjoyed looking at the app while looking at it. This also translated to finding the boundary between too many graphics or too much text. We wanted to provide users with the appropriate amount of information in thumbnails to make an easy using process but still not overwhelming them with information and maintaining the aesthetic appeal of the app. Finally for functionality, we wanted to see if users could not only complete our tasks with ease, but also provide all the information they wanted to provide. We wanted to know if the users wanted to complete any additional tasks that we did not provide with our initial interface.

## Results and Discussion

We took away a couple of key insights from the testing process.  First, people were excited about the intuitive nature of the app and how easy it was to move through the tasks. They felt like the design was clean and uncluttered, which was the initial goal, so we were excited to get that feedback.  One of our testers actually had quite a bit of UI design experience, and gave us some specific feedback on places where we had too much text or too little, or places where we should have a feed versus having buttons, and we plan to incorporate that knowledge into the next iteration.  We also heard concerns around there not being easy ways to get back to the home page from every different screen, and it not being

clear how to submit a donation when you're donating to a campaign, which are small design changes that we'll definitely make in the next iteration.

More fundamental to the design of the app was hearing from a couple of participants that they were not too excited about donating just to help people get richer. They were ok with creating their own campaigns, but didn't think they'd give money to someone just to entice them to complete a task. They said they cared about the earth, but not enough to just transfer their wealth to others to get them to care too, and that they felt like it didn't really get those people to actually care about the environment.

Several participants mentioned that they'd be more excited about donating to a campaign that's not as self-serving. In particular, one of our participants created a campaign and wrote in the description that the funds raised would be donated to help Syrian refugees, and when looking at the existing campaigns didn't want to fund them because the money was just going to those people's pockets. We heard similar comments from the other participants, and think that the core idea would be much more effective (and raise a lot more money) if people were donating to a cause, even a cause related to the type of sustainable action they were taking. Movements could then be created around social causes, and would take off based on people's excitement about helping out a particular charity or cause as much as due to people's excitement about helping the earth.

We couldn't learn much about the back-end design of the app from this set of tests, but hope to do that later in the quarter as we start to make electronic prototypes of the actual app itself. Overall, we're excited to incorporate the feedback we got into a newer, better iteration of EcoKick!

## Appendix

*Testing Logistics*

Eric - Demonstrator and facilitator

Jonny - Human computer/application

Ngoc - Observations and data collection (recording the test w/ iPhone audio recorder)

1) Set up prototype (remove old tape -- add new tape to inputs)
2) Introduce ourselves and the project
3) Eric: Demo the prototype using the script
4) Hand over to the participant
5) Observe the participant as they interact with it going through the 3 tasks -- updating the screens as need (Ngoc to take notes)
6) Debrief with the participant using the list of questions
7) Thank the participant

*Script*

Thank you for being willing to try out our app idea, EcoKick. Before we start, I wanted to ask if it will be okay if we record this? It'll be only for us to use.

Great! So the mission of the platform is to enable people to earn money toward a social cause by doing sustainable actions. It's essentially a Kickstarter for the environment and for social issues.

The whole core of the app is starting a campaign, where you commit to take action to live more sustainably -- for example, biking to work every day. This is done like so...

*Demonstrate the "Create a campaign" task.*

Then, people can find your campaign and support you by giving you money for it.

*Demonstrate the "Fund a campaign" task.*

You can even expand your campaign into a movement by joining with other campaigns to really show make a collective impact.

*Demonstrate the "Launch a Movement" task.*

Now we'd like to see you try it out. So imagine that you have just downloaded the app and have opened it for the first time to explore. As you do, we'd love to hear your thought process and your reaction so please think aloud! We will be here to observe and answer any questions. After, we have a few questions we'd like to ask about the experience.

*Data*
1) Usability - Ease with carrying out tasks
    a) Was the process to create or fund a campaign easy and intuitive?
    b) Did the organization of the app make sense?
2) Visual appeal - Satisfaction with aesthetics of UI
    a) What do you think of how the app looks?
    b) What words/adjectives would you use to describe the UI?
3) Functionality - Ability to carry out what the user desires
    a) Were you able to do what you wanted with the app?
    b) Were there things you wish you could do with the app?

| Participant | Observations | Usability | Visual Appeal | Functionality |
|---|---|---|---|---|
| Part. #1 | Challenged the notion of our app: "We're holding the world hostage. I will be horrible to the environment if you don't pay me." <br><br> Campaign: "I would not buy a hummer. 50 bucks is enough to deter me. These funds will fund one beer run that I will make without a hummer." <br><br> "Do I have to do more?" <br><br> Create a movement: "Extort the environmentalist." | I don't think the numbers you put would sway me. It's self-motivated. <br><br> I see the idea of it. But I don't think people would download your app in the first place. It's hard to discover. <br><br><br> "It's not a thought that I would have like oh I want to become a vegetarian, I wonder if someone will pay me for it." | 3 <br><br> Pleasant | Does what you told me it would <br><br> But I wouldn't use it <br><br><br> A little slow <br><br> Seems functional |

| | | | | |
|---|---|---|---|---|
| | "I hope you guys are linked to Facebook"<br><br>*Missing a see my page*<br><br>"Do you want me to click fund a campaign?"<br><br>"I'd love to hear more about Jonny recycling everyday."<br><br>"I like the video but I don't want to fund anything."<br><br>"Do I need to put in my credit card?" | | | |
| Part. #2 | Stared at starting screen for a while<br><br>Movement: "Ride for Peace in the East. My workmates will ride to work to support Syrian refugees. Our campaign wants to raise $2000 dollars. I'll invite everyone from work, my Arab friends, people who are likely to donate, friends of people from the company". | Easily navigates the screens.<br><br>From the homepage, it's intuitive. There's 3 things you can do. I chose one and went out from there. No clutter.<br><br>Good UI.<br><br>The movement launching page is a little confusing. When I invite people it should populate. | If I open the app for the first time, I want to see a page that welcomes me. Mission statement. Then a get started button. | |

| | | | | |
|---|---|---|---|---|
| | "Select a campaign: I don't know what this does".<br><br>Understands the concept.<br><br>"I may even have to create a profile before I see my page"<br><br>"Why am I back here now?"<br><br>"I probably want to browse around if I want to fund a campaign."<br><br>"Not very inclined to help any of this stuff. Seems pretty self-serving. I like the movement aspect of it. I shouldn't be getting money for something I should be doing anyway."<br><br>"If I'm giving away money, I would want to give to it to a good cause" | The creating a campaign page: no inviting people, probably want to add that. An about me page, why i'm doing this, why it's important. | | |

| | | | | |
|---|---|---|---|---|
| | | | | |
| Part. #3 | "oh that's pretty cool" during Eric's explanation of the app<br><br>Homescreen: "Is this gonna happen the first time I open it?"<br><br>"I would like a greeting to get excited about sustainability"<br><br>Reads the options: "looks like a feed so these 3 things might like be a nav bar. You can make fund a campaign a feed"<br><br>Check out Pttrns<br><br>"I probably need to be inspired a little more."<br><br>"I think you need to have people they know to start a | Suggest a donating amount<br><br>Connect to people's Venmo<br><br>"Ooh carbon emissions, I like this. You could even compare it to other people"<br><br>Fund a campaign: Scroll through scroll through. "Ooh this person is cute, I want to fund him" | More images<br><br>The more personification the better<br><br>Fund a campaign: "I like this feed structure"<br><br>Campaign view page: too much text<br><br>Finished funding page: Shorten text. Make it a popup to make it easier to go back home. | |

| | movement. Why would people want to fund Joe Schmo" | | | |
|---|---|---|---|---|