

EcoKick

Help the Earth, Pay it Forward

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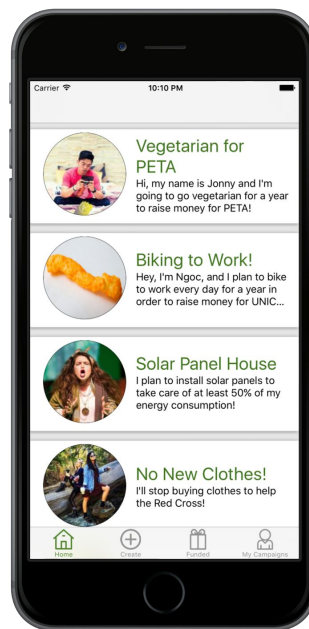
Problem & Solution Overview

Need

People genuinely want to have a positive impact on the world, but often don't know how to start or lack motivation because they're unable to see the impact they can have.

Mission

EcoKick enables individuals to be inspired by how others are living more sustainably, undertake their own environmental goal, and crowdfund money for a social cause to carry out this goal. Through this process, people are able to make an environmental and social impact by taking sustainable action and paying it forward to a cause they care about.



The home page where users can see campaigns started by others and be inspired to start their own.

Tasks & Final Interface Scenarios

Simple: View funded campaigns

We chose this as one of the tasks because people who support a campaign will want to keep track of how the campaign is doing. This task is an important way for people to continue engaging with the app and those they have supported. Users can both view the progress of campaigns they've funded that have not received their total allotted funding, and view updates from campaigns that have received all of their funding on how they're doing, including daily or weekly updates with photos from users of them doing the task they promised to.



The 'Funded' tab on the navbar opens a feed of funded campaigns which allows you to check updates.

Medium: Fund a campaign

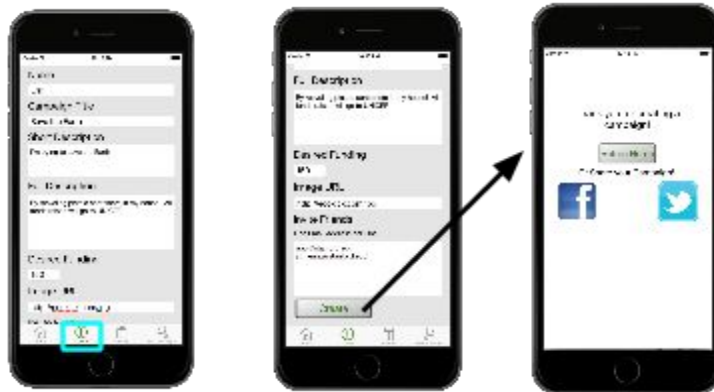
Being able to give money to an individual's campaign is necessary to fulfilling the twofold mission of the app: enable environmental action and make a social impact. By funding a campaign, the user not only provides encouragement to the campaigner to live more sustainably, but also makes a social impact by contributing to a charity.



Funding a campaign starts with the 'Home' option on the navbar to view the feed of campaigns. On the campaign page, users can input the amount they would like to donate.

Complex: Create a campaign

The last task brings the user experience full circle: after gaining ideas from others and supporting their campaigns, the individual creates their own campaign to be more sustainable and crowdfund for a social issue. This task is the way in which users commit to taking action environmentally and socially.



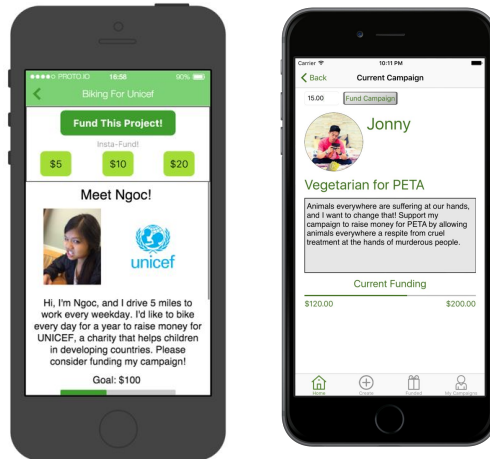
Users create campaigns in the 'Create' tab where information about the campaign gets inputted.

Design Evolution



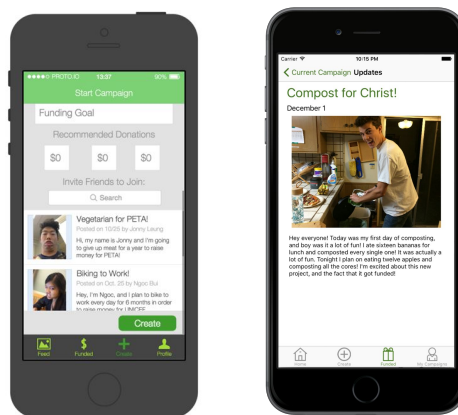
The progression of the home feed from lowfi to medfi to final app.

One big change we made was adding a navigation bar across the bottom to make it easier to move from page to page. Especially in the low-fi prototype, users were confused about how to move from page to page, and wanted to be able to view campaigns they'd funded and have easy access to all the options in the app. In the medium-fi prototype, we added a navigation bar, and in the hi-fi prototype the nav bar is visible consistently through the app.



On the left, the campaign page in the medfi, and on the right, the final campaign page.

Another thing that developed as we continued to change the app was creating a more consistent color scheme. Users were often confused by the many different hues of green when we moved from black and white low-fi to colorful medium-fi, and we came up with a consistent green and gray scheme (using only two colors, as recommended in lecture) to make the app more aesthetically appealing as well as easier to understand and use. This was especially apparent in the funding section of the app, where in the medium-fi prototype there were a lot of colors that didn't necessarily correspond well to what they indicated.



On the left, the create a movement page (which was removed) where users could invite other campaigns. On the right, updates for a campaign a user has funded.

Our app's core functionality has remained mostly the same, but we've gotten rid of a couple unnecessary features to make it easier to use and less complex. In early iterations, we had options to do things like send messages in the app, or view your overall profile, which we streamlined out because they didn't contribute to the core functionality and were distracting in

user testing. We also changed from allowing users to “start a movement” as our third task to allowing them to view updates on campaigns they’d funded. This was because we heard from users that they wanted to use the app with their friends, and weren’t going to invite other campaigns of random strangers into movements when they didn’t know how dedicated those strangers would actually be to the cause. Users also wanted to make sure campaigns they’d funded were following through, otherwise they didn’t feel comfortable donating, so we added the option to send updates to people who funded your campaign.

Finally, though this wasn’t a design change necessarily, we changed the idea of the app from raising money for personal gain to raising money for charity. In low-fi testing, we heard from many people that they weren’t comfortable giving money to others just to help them get richer, but were very interested if they were donating that money to a good cause. We pivoted on our project’s core idea because of this insight.

Major Usability Problems Addressed

[H2-4 Consistency and standards] Bottom navbar not always present

There were inconsistencies with when the navbar was present and when it was not. As shown in the figure, it disappears on the campaign pages. It wasn’t a permanent part of the app. In order to ensure the user always has access to the features and the home feed, we made the navbar fixed on every screen (except for the thank you page).



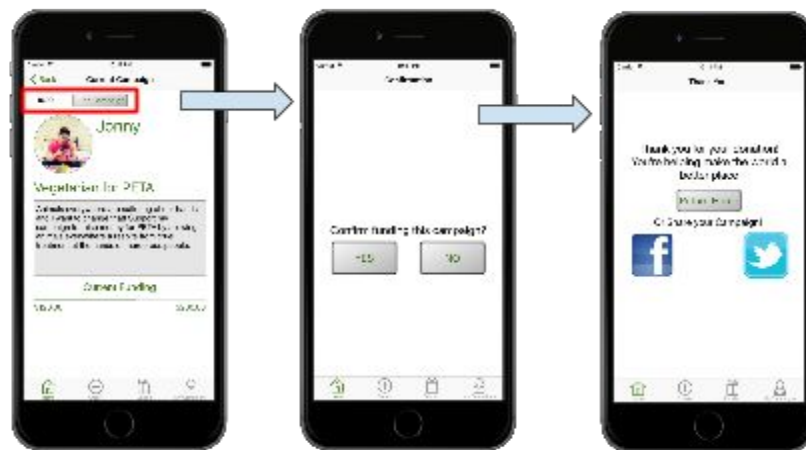
Navbar not on campaign pages in medfi (top screens), now consistently present (bottom screens).

[H2-5 Error prevention] Confusing and error prone funding options



Before: Medfi prototype campaign page where users can fund someone.

At the top of the campaign screen on the medfi prototype, there were 'Insta-fund' buttons and a 'Fund this campaign' button. The intention was to offer suggested amounts for donations but it ended up leading to confusion about which option the user should pick. In the final app, the extraneous buttons are removed and a text box is put in its place. There's now only one button for funding, making it much clearer. Additionally, as shown in the figure, once a user clicked the amount they wanted to donate it immediately took them to the 'Thank you' page for their donation without any confirmation. In order to prevent user error if they didn't want to actually fund the campaign, we added a page where users must confirm their desire to fund by clicking 'Yes' or 'No'. These changes are shown below.



After: Final campaign page with additional confirmation step and simplified options.

[H2-5 Error prevention] Lack of error prevention for inputs

A major component missing in the medfi prototype was error checking on user inputs for the create a campaign page and when users wanted to fund a campaign. The medfi accepted all inputs without doing any checking. In the high-fi prototype, we added extensive checking to ensure users actually input something and that what was inputted is appropriate.



Sample error messages while creating a campaign and funding a campaign.

[H2-7 Flexibility and efficiency of use] Create button to submit hard to find on 'Create' campaign page

In the medfi prototype, the create button is tucked away making it hard for the user to locate and complete the 'create a campaign' task. To fix this, we made the create button much wider at the bottom of the page and very easy to spot. It's in alignment with Fitts' Law as well because the target is now much bigger so it will be easier for the user to click.



The image on the left shows the medfi prototype and the right shows the final app.

Prototype Implementation

To build our hi-fi prototype we used XCode, writing the app in Swift and using storyboards to simplify the graphical design of the app. XCode's Storyboard functionality made it significantly easier to see what different designs would look like, and to add buttons, tables, and other objects easily to a particular page of the app, which was great for prototyping because we could try several designs very quickly and choose the one that looked best. We had a difficult time initially because none of us had any experience with Swift or with app development more generally, but by spending some time in office hours and significantly more time searching the internet we were able to get a good handle on the tool. Another advantage of XCode and Swift is that they make it really easy to customize the app design, because the tools allow you to have a greater degree of control over tables, color schemes, and layout than do other prototyping tools.

The main difficulty we faced with XCode was just getting up to speed with how it works. XCode gives pretty non-descriptive error messages, so especially for first-time users with no guidance it was often hard to decipher what exactly we needed to fix when something was going wrong. Also, while it does have good customizability in layouts and color schemes, XCode's Storyboarding tool doesn't let you easily edit the appearance of generic objects it provides for you, like buttons.

We had to Wizard of Oz the actual funding of different campaigns, as well as the login information. For a prototype, the users aren't going to be actually transferring money from their bank account to an app, so we faked that by using fake "dollars" that don't correspond to actual money. We also aren't actually storing login information for the users since the app doesn't store dynamically added data between uses, so technically a user can log in with any username

and password combination. We also hard-coded in other campaigns for users to view (both campaigns the user had funded already and ones they hadn't yet funded), as well as existing campaigns the user had already created.

In the future, we'll add functionality to actually get bank account information and use real money, as well as automatic transfers to the charities so people don't abscond with others' money! We'll also add the ability for a user to provide updates on a campaign they created that's been funded (this didn't make sense in this context because no one would be able to view the updates since data isn't stored long-term in our app), as well as fleshing out a user profile.

Summary

The process of ideating, designing, refining, and prototyping was a lot longer than we thought, but very rewarding in the end. By focusing on our users throughout the process, we were able to design an app that meets a sincere need of environmentally conscious people, and to design it in a way that is easy to use, aesthetically appealing, and hopefully fun! EcoKick is a novel concept, allowing users to reduce their carbon footprint while contributing to causes that are important to them, and keeping them honest by allowing donors to follow up on their commitments. We hope you enjoy reviewing our final project as much as we enjoyed the process of creating it!