

Assignment 2: POV & Experience

Team TrashCats

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Problem Domain

Lack of action and understanding of impact on the environment among individuals and communities.

Initial POV

We met Sam, Gloria, Kevin and Annabah. We were amazed to realize that they all care about sustainability and the environment very deeply, but feel powerless as individuals to have an impact on a large scale. It would be game-changing to show them that they can individually have a dramatic impact on the environment!

Additional Needfinding Results



Lauren works at the Office of Sustainability as the Outreach & Programs Manager where she uses strategies of behavioral change to motivate individuals to be more sustainable. She therefore has an expert's perspective for our problem domain. We learned from Lauren that getting people to change their habits and better understand environmental issues is a hugely difficult task that is often discouraging and inadequately rewarded. As an example, she talked about how frustrated she felt talking to a student who did not believe there was a drought because there was still rain that occurred this past winter. Lauren

expressed that she is often saddened by how little people know and stated that she has to be very compassionate and patient in these interactions. Nonetheless, her passion and belief in individuals to change was palpable.

We also interviewed Sarah, a psychiatrist from Carmel, Indiana and mother of 2 in her late forties. We wanted to ensure that we had diversity of perspective in age in particular, because most of our interviews to this point had been with people in their twenties. Sarah was also chosen because she's from a community that is not particularly focused on sustainability, and a community where few people believe in global warming.

From Sarah, we heard that she does focus individually on doing things that are sustainable, but she does so because it



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makes her feel good. She does care about the environment, but is not necessarily concerned with quantifying the impact of her actions and likes the feeling of “having done something beneficial for the world” without knowing exactly how much impact that beneficial action actually had. She would love to help her friends act more sustainably, but doesn’t necessarily see an easy way to get around their ideological differences in order to do so.

Finally, we interviewed Sofia, a High School student from Portland, Oregon. None of us had any sort of previous farm experience so we asked around looking for someone who had worked on a farm at some point. Little did we know, Sofia also provided us with a perspective on sustainable actions in Puerto Rico, which was unbelievably different from how we act sustainably in the US.

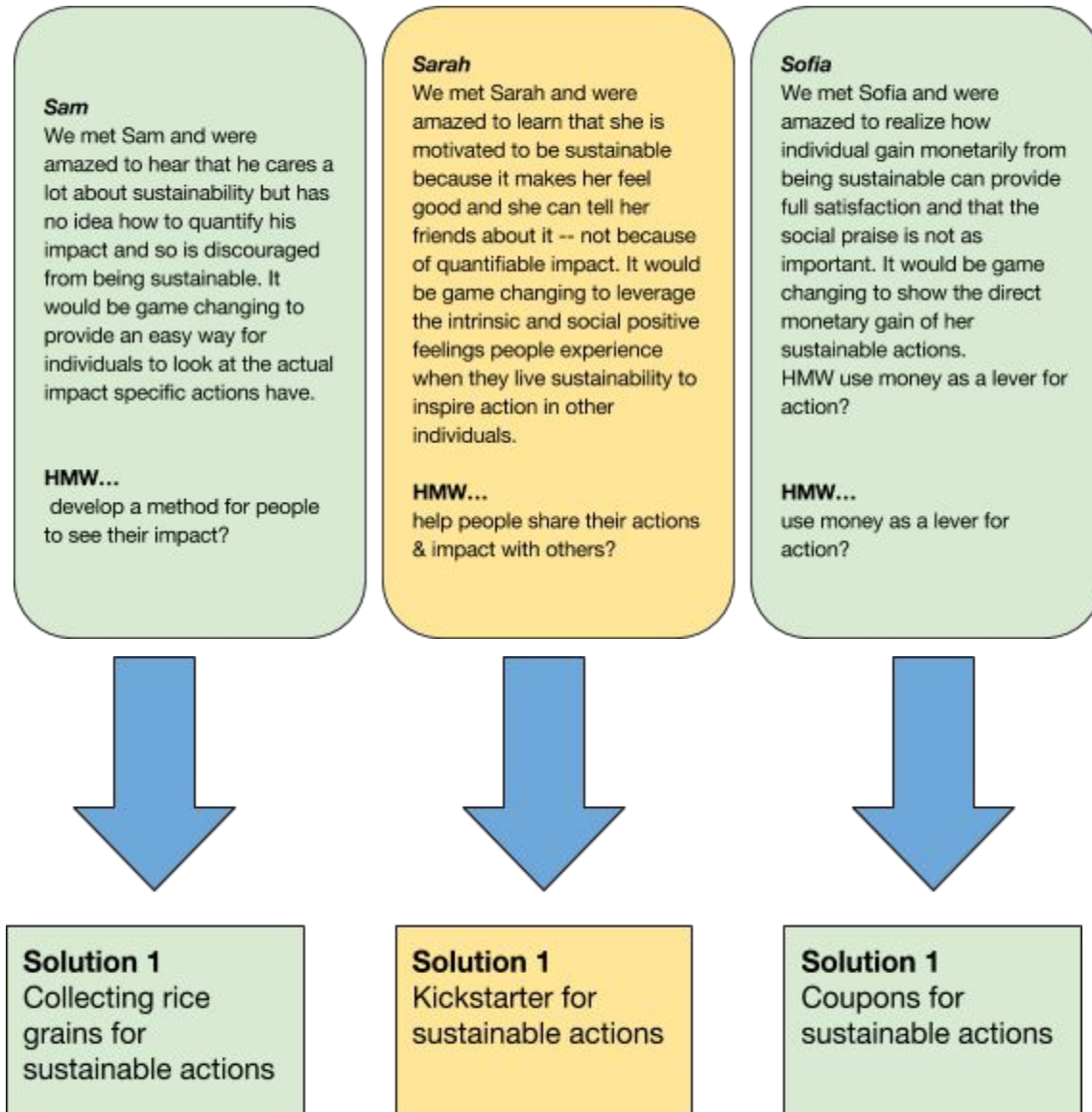
From Sofia, we heard that certain actions causing waste in the farming process seem unavoidable. They use a system called Drip Tap which uses long plastic tubes to water the crops. Unfortunately, these plastic tubes can only be used for 2-4 harvests; furthermore, any biodegradable alternative is overly expensive for the farms. Although she acknowledged the farms’ faults, she also had an interesting take on sustainability at home.

Unlike Sarah, Sofia felt that she could be monetarily persuaded to act in a sustainable manner. She did not worry as much about the “feel good” part of green actions, she wanted to know how much money she had saved from turning the lights off every day or re-using containers.



POVs + HMWs

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Experience Prototypes

Kickstart Sustainable Action!

For the solution we came up with from Sarah's HMW, we decided to develop a Kickstarter for acts that help the environment and the Earth. Basically, the idea is that people would propose actions they wanted to take that were sustainable, and the amount of money they wanted to be paid to take that sustainable action. Then, people who were genuinely passionate about the environment could crowdfund those actions, and if the goal was met, the person would follow through and be held accountable through daily photos or a daily blog, some form of updates to the people who agreed to fund them.

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To test this prototype, we wanted to figure out whether people would be even interested in this sort of crowdfunding in the first place. We could create a mockup and show it to people and ask them to interact with it, but that doesn't really get at whether the kernel of the idea is good in the first place. To get a better sense of that, we need to know if people are even interested in funding sustainable actions of others, or in taking different actions that are sustainable if they'll be paid for it.

In order to test this hypothesis, which is the basis for our app idea and is easier to address than testing the app itself at this stage, we interviewed Camille, an environmentally-minded Stanford graduate who cares a lot about sustainability. Camille was chosen because she is an ideal user for the app on the funding side, since she is passionate about getting others to take sustainable action.

Camille was posed a series of hypothetical questions about how much she would pay for certain actions. To establish a baseline, she was asked how much she'd pay to send a friend or a random person skydiving for a day, with no expectation of being paid back, to which she responded up to \$10 for the friend and no money for the person she doesn't know. She was then asked how much she'd pay, for example, to a person's campaign of biking to work instead of driving to work every day, and responded up to \$50 for a friend and up to \$20 for a random person. Camille said "People unfortunately won't just be inspired to take sustainable action, and if I need to pay money to get them to care, then so be it." From our initial prototype questioning, it sounds like there are people passionate enough about the environment to want to pay to fund others' actions.



Camille was also asked, again hypothetically, how much money she'd need to be paid to go vegetarian for a year. She replied that "though meat is my favorite food, I'd go vegetarian for \$500." So ten of Camille's friends or twenty-five random passionate people like Camille could potentially fund her vegetarian pursuit. From this initial user testing it sounds like the idea is a viable one.

The test worked relatively well, though we are looking to do more user testing with people who aren't so passionate about the environment, both to see how much they'd be willing to pay and how much they'd need to pay to do different things for the environment. So far though, it seems like our assumptions that people will be willing to

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pay for others' actions if they further the goal of sustainability and that people will act more sustainably if they are financially motivated were both valid.

Coupons for Sustainable Actions

For Sofia's HMW, we decided to prototype an idea where people could act sustainably and receive some sort of compensation for their actions. The assumption is that people will increase sustainable habits for some sort of gift. Thus, if we can give the people what they desire for acting sustainably, hopefully we can find some means to encourage large groups of people to act with a minimal cost. We also assumed that people might want things besides money. Although Sofia said that this was her ideal gift, we also took into consideration that others would want some sort of experience as a reward for their actions. Lastly, we hoped to help educate people on their effects on the environment and encourage them to work on their own, without any sort of monetary gain. We hoped that this would instill good habits in users.

The prototype began with the question of what would people want most. We had our subject, Karen, carry out various sustainable living tasks such as recycling, using a reusable water bottle instead of a normal plastic bottle, and help take care of her house's compost. We then proceeded to provide Karen with three possible options for her rewards, a small monetary reward, a credit which can be used towards a gift of higher monetary value, or a credit which when shared with a friend can reach a top tier of gift. Karen is an everyday college student who acknowledges the environmental issues but doesn't go out of her way to act. We hoped that by giving her some sort of compensation, we could encourage her to work more. After carrying out the various tasks, Karen chose the money. She didn't feel like the other options carried any value to her. However, instead of the top tier which had \$30 off of a concert ticket, she offered the idea of being able to enter a raffle for Beyonce Tickets. While similar veins, the idea that she could help the environment and possibly see Beyonce because of it felt like a higher reward than a small price.

We noticed that Karen was more than willing to encourage others to join her if it meant her receiving additional points. While the money was great, Karen would have rather risked it all for something of much higher monetary value than a per-act-commission. We decided that if we were to follow this track, we would have to find some sort of sponsorship to get larger prizes available. While feasible and easy to put under the light of allowing celebrities and musicians to support green living, the actuality of this project seemed a little far fetched. However, if we were to find a group of desirable prizes, Karen said she would be more than happy to change her lifestyle and encourage those around her to do the same.



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Rice Grains for Sustainable Actions

For Sam's HMW, we decided to prototype an idea where people collected rice grains for each sustainable action. The assumption is that people are not taking action because they are unable to see the impact they can have as individuals. Thus, if we can help people physically see the results of their actions in a concrete way then they will be more inclined and motivated to develop sustainable habits in their daily lives. We also assumed that people enjoy having a measurable goal to work toward (i.e. filling up a cup with rice). Lastly, we believe that people do not realize the accumulated impact they have and if they can somehow keep track of everything they have done they will feel good about their actions and continue doing it.

The prototype is essentially a challenge where people receive some number of Goldfish for some quantifiable sustainable action -- such as, five Goldfish for every time someone composted after a meal (we decided to choose Goldfish because they are bigger and more enjoyable to eat). We built it by making a simple instructional guide explaining how the challenge works and a conversion table from sustainable action to Goldfish. We also grabbed a cup for people to store the crackers and a huge jar of Goldfish.

We tested the prototype on Delenn, who represents our target users: our peers. We explained our project then gave her the cup, the jar, and the infographic to read over. She then proceeded to get Goldfish based upon how many sustainable tasks she accomplished.

We noticed that she exhibited great excitement every time she realized she earned Goldfish. She showed signs of pride on her face. Conversely, when she failed to complete a task (and didn't get Goldfish) she was disappointed. Reflecting on the experience afterward, she said she was sad that she couldn't fill the cup and wanted another chance to do so next time -- confirming our initial assumption that giving people quantifiable goals spurs sustainable action. It proves, additionally, that visualizing people's impact encourages more action.

Another interesting result is that she felt the tasks on the conversion table were too ambitious or out of touch with Stanford students. For example, she pointed out that the task 'recycle 20 sheets of paper' didn't make sense because no one uses paper anyway. This revealed that we may want to assume that our peers are already aware of the impact of recycling and are willing to recycle when they can. The other interesting comment she made is that the compost tasks can be impossible for some if



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there people don't have access to a compost bin. From this, we learn that Stanford students would be willing to engage in sustainable actions if the proper resources are available for them to and the barrier to participation is low (which is something Lauren mentioned in her interview).

Which Has The Most Potential?

Based on our initial interviews and testing, we are most excited about the potential for an app that allows people to kickstart the sustainable actions of others, or have their own actions kickstarted. It seems like the idea that addresses our problem domain the most effectively, and the one with the most potential for impact, because it leverages people who are already passionate about sustainability to enable others to do the same -- thereby starting a collective movement around individual action. The prototype was met with the most enthusiasm in our testing as well, which signals to us that the idea is a compelling one.