

Vega



Your Sustainable Pet



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Abstract

Vega is an educational game for children, which provides resources to help families make the transition to a plant-based diet, by involving children in household cooking. This sustainable digital pet appeals to children to help them understand how important their diet is. The gaming experience connects family members, and allows them to introduce more vegetables into their diet.

One of the most important global challenges is climate change. Through primary and secondary research on sustainability and cultural relationships to food, this project seeks to help change the way families eat today, but also the way they will come together to eat tomorrow.

By making the transition to a plant-based diet fun and engaging for families, Vega can make a contribution to combatting our planet's climate crisis.

Table of content

5 Introduction

Concept Statement

Impetus

Significance: Why it matters

11 Context & Research

17 Methodology

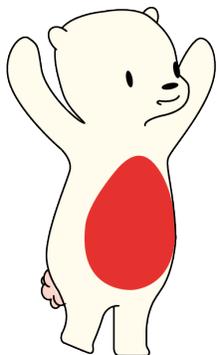
Experiments

User Flow

Sitemap

User Testing

26 Reflections



Introduction

Concept Statement

The biggest challenge facing our planet is the Climate Crisis. Since greenhouse gas emissions produced by omnivores are approximately twice as high as those of vegans, individuals and families can make a profound impact by switching to a plant-based diet. On the other hand, if the status quo remains the same and we continue to thoughtlessly eat the way we are currently eating, we become complicit as consumers with the meat, seafood and dairy industries - some of the most egregious polluters on the planet.

Vega is an educational game for children which provides resources to help families make the transition to a plant-based diet by involving children in household cooking. It is a sustainable digital pet which lives under a magical tree and has the power to heal nature depending on what it eats. The child needs to feed it, give it sufficient water, fruits and caresses. Its environment and itself will only be happy and healthy if Vega is fed a plant-based diet. If not fed, its tree dies and Vega is in total burn-out. This game, along with sound effects and animation, will enchant children and make them understand what is happening in the real world. To finalize the experience, the kid will have the opportunity to share a plant-based recipe with their parents that they will be inspired to try out.

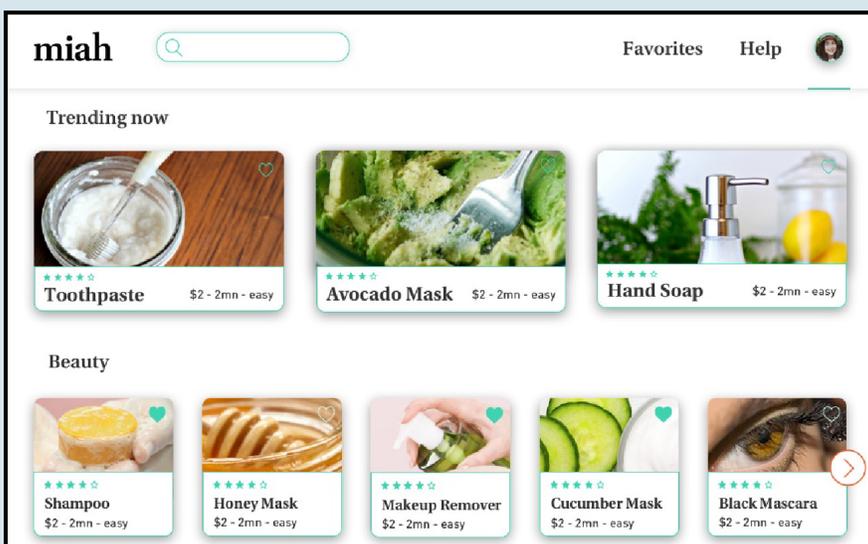
Impetus

As a graphic designer, there has always been a little voice in my head saying “what is the purpose of what I am doing? What impact do I want my work to have on the world?”. I wanted my work to be more meaningful and useful in solving our society’s multifold and pressing issues. The role of a graphic designer is very broad but it is not necessarily “useful” to society in this sense. Graphic design can help a cause but does not change people’s lives directly. With technology, however, the possibilities of having a positive impact are enormous.

When I started to study communication design, I was surprised about the role a UX/UI designer has in creating a product. It constitutes what I think design should be about: helping the “user” in his/her life.

However, UX/UI design is still limited in the sense that it helps the user navigate the product but the product might not be “good” nor socially useful. With this idea in mind, I decided to take advantage of my thesis and work on sustainability.

Climate change has been a concern of mine for quite some time now. I am not really sure what brought it to



my attention, but I like to think that I've been doing my part in helping ameliorate the situation as much as I can. For my major studio, I created a mobile application called *Miah*, which helps users find recipes of home-made and natural products. The user can also publish his/her own recipes, share them with friends, make comments and set reminders to their calendar, thereby motivating and reinforcing the user's sustainable behavior.

During that semester, I applied to different summer internships. Raz Godelnik, one of my professors at The New School, fortuitously informed me about a socially conscious company called *BBMG* that is well-known for its engaging marketing and graphic design work. I ended up working there during the summer and focused my efforts on creating a comprehensive marketing report that helps marketers make companies more sustainable.

However, I still had a nagging feeling that those tools, though important and useful, are limited in scope and only help a small sector of the population, as it focused on marketers and salesman's work process. It doesn't address nor change the big picture. That is why I decided to continue my work on sustainability.

Significance

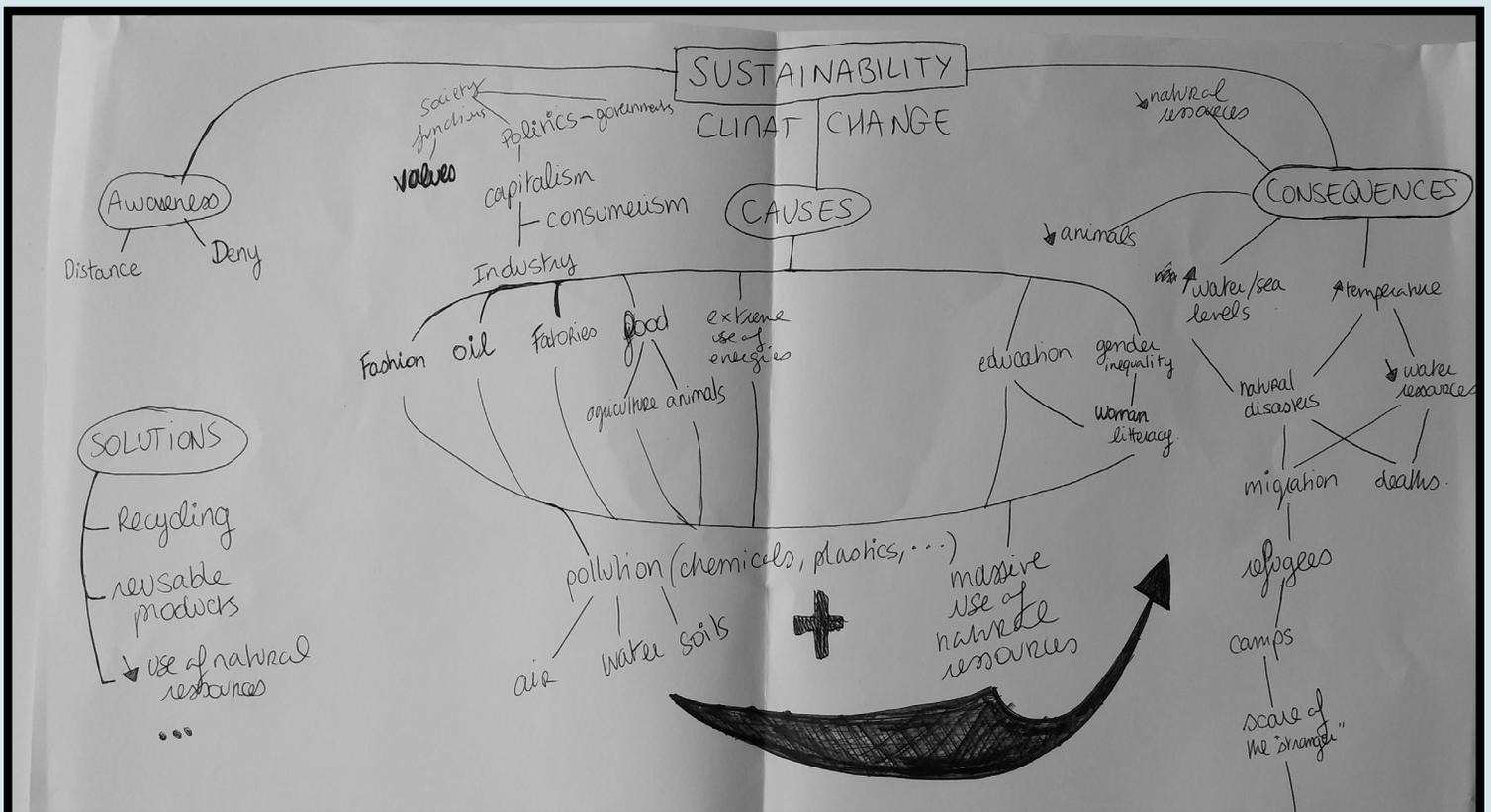
Our society's most important problem is climate change. Scientists from all around the world have been insisting to every institution and government that action must be taken immediately. Solutions have been found but not all have been put into effect.

When analyzing the big picture of what climate change is, three main aspects emerge. First, climate change is due to different human actions and conducts: those are the causes of the problem. Second, there are and will be

dangerous and important consequences on our planet and societies. Finally, there is the importance of awareness; without awareness nothing will change. Those aspects bring different analysis and reflection to how we can act, implying working on: the causes, the consequences, and bringing awareness to the population.

To fight climate change, we need to focus on changing the course of its causes. If we do it fast, it could make a huge difference in how our world will evolve in the next decades. There are consequences to climate change. Being prepared and already starting working on those consequences is as important as fighting climate change because we have already waited too long.

Numerous art and design projects have brought different solutions to the causes and consequences of global warming, and awareness to sustainability. Designers and artists have always had a big responsibility: to design for the good of all and with the future of our society in mind.

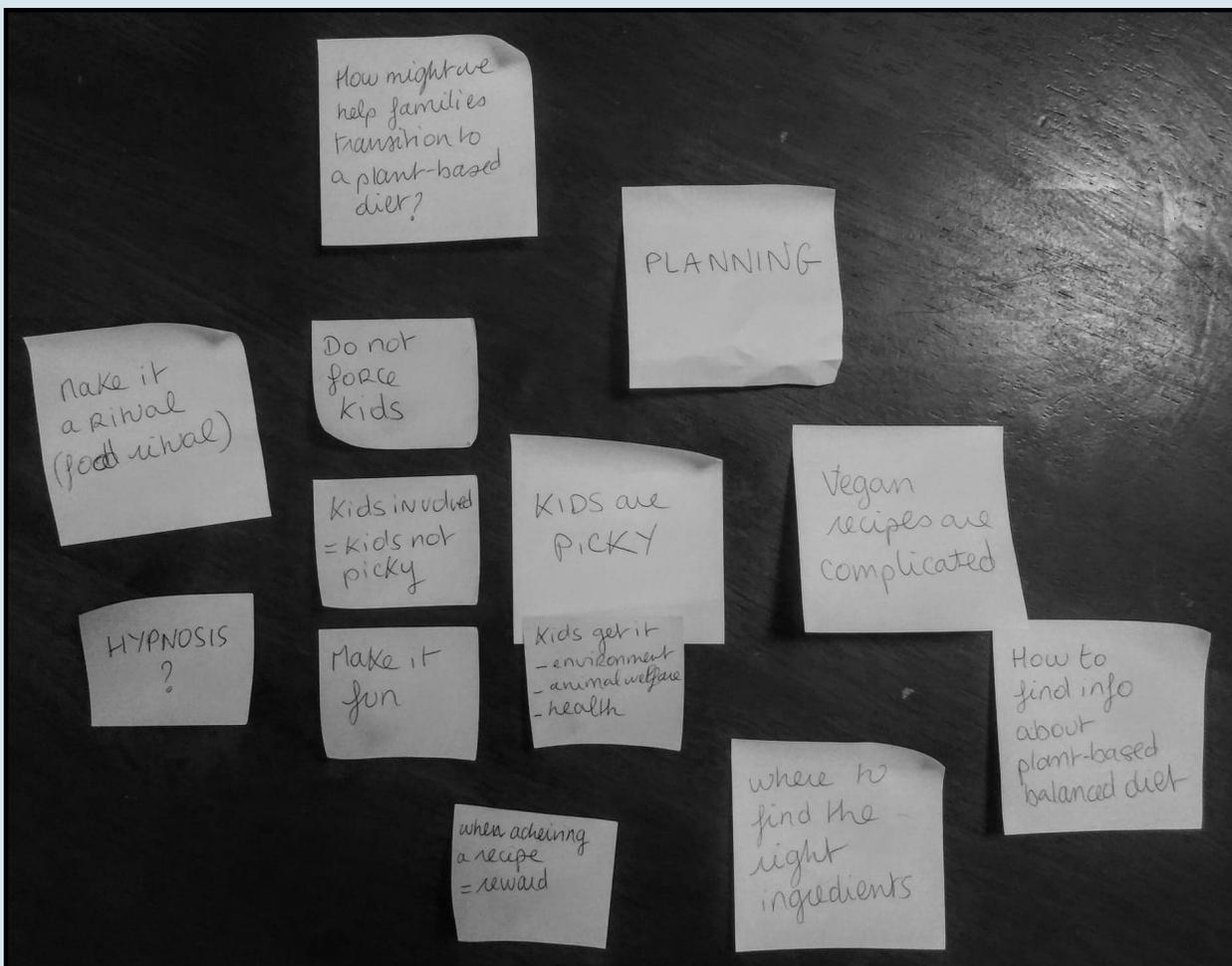


After deep research about climate change, I have decided to focus on the essential question:

How might we help people reduce their animal food product intake?

To answer this question, I interviewed five experts in human nutrition and our food industry. Talking to them allowed me to understand our history with meat and nutrition, and how our society eats. After taking all their knowledge in, I decided to focus on helping families with children to transition to a plant-based diet.

This decision came from my own experience too. When growing up, my own mother was a smoker, and I pushed her to quit because I had learnt that she could die from it. With this in mind, I thought if I gave tools to children for them to be involved in the cooking process of their



family, they would feel empowered to push the whole family to transition to a plant-based diet.

Nevertheless, it is a well-known fact that changing eating behaviors is exceedingly challenging. Westerners' diets, in particular, are stubborn to change as they are handed down generationally and culturally. Omnivore families, despite their good intentions, find switching to veganism difficult. Even if parents understand the importance of healthy eating, children can be notoriously picky eaters and may be reluctant to explore and eat unknown fruits and vegetables. After interviewing a number of parents, I discovered a surprising insight: the more a child is involved in the cooking process, the more he/she will be willing to try new things and eat more vegetables.¹

I also found that many of the interviewed parents were under the impression that vegan recipes were complicated to make, and that it would be difficult and cumbersome to find all the right ingredients. My research shows that, on the contrary, there are ways to shop and cook vegan that are very simple.

My thesis project seeks to inspire young people, for them to understand the impact of their diet on the environment. By doing so, I hope to be able to not only educate children but also their parents. By reaching most generations, I hope that as their way of life changes, our capitalist food system will too.

Context & Research

Reflecting about the effect of our capitalist food system on our planet, introduces an important question: **How might we help people reduce their animal food product intake, to decrease the demand and in consequence the carbon emissions of the animal food industry?**

To answer this question, I did deep research about today's climate crisis. I think the different steps I took would augment a potential reader's understanding of my research process and its path from a very wide topic that is climate change to a narrower focus: finding a solution to fight the impact that the animal food industry has on the environment.

I started by reading the book *Project Drawdown*² edited by Paul Hawken. This book presents numerous solutions to climate change presented by thousands of scientists worldwide. As I was reading it, I was able to narrow my research focus to one main theme: the pollution of the animal food industry.

To understand Westerners' food system, I attended two different summits: *Our Future Festival*³ in New York City, and *The Reducetarian Summit*⁴ in Washington DC. I learned more about the climate crisis and met people that helped me with my research, such as Garrett Broad, professor at Fordham University.

My takeaways from those conferences brought up an important question: Why do we eat meat?



To answer this question, I read *Meathooked*⁵ by Marta Zaraska. In her research, she explores human history with animal food, from the first cells to our era. This book is full of crucial information to understand our food system.

People prefer to stay safe and keep eating what they already know. It is difficult to imagine switching to an unusual and unknown diet. Today, a lot of individuals believe that you can find protein only in animal products. This belief comes from the education our society has had, the recommendations our government gives us, and our cultural misconceptions. Not only is this belief not accurate, since we can find sufficient protein in plants and grains, but it has also been proven that the health benefits brought by a plant-based diet are incredible. The main aspects of a plant-based diet are not only animal welfare, but also sustainability and health.

In addition, to understand the link between food and our health, I watched the documentary *What the health*⁶, directed by Kip Andersen and Keegan Kuhn. It shows

the impact of diet on people's health, by interviewing doctors, nutritionists and patients (with diabetes and cancer). This documentary explains how a plant-based diet can really treat different diseases. In addition, they show the power and influence the animal food industry has on our society. I can now focus on researching specific answers and solutions to the question **How might we help people reduce their animal food intake?**

The fact that people are not aware of those essential aspects of a plant-based diet is a major issue in the pursuit of decreasing worldwide meat consumption. To reach this objective, awareness has to be brought to the uninformed, but the problem of accessibility also has to be addressed. For people to start eating plant-based products, those products need to be tasty, healthy and accessible.

During the *Redugetarian Summit*, Jonathan Safran Foer emphasized the idea that individuals are always looking for excuses not to act. They doubt their own ability to change over time. They tend to not stick to their plans and forget about their goals. He believes that people forget about their sustainable goals when they are not in front of the images and stories that show them the proof of climate change. In his opinion that is how people should think: "I don't know if I can do it and if I can be consistent, but I got to try." He also adds that people need to make a specific plan and share it with others to be able to achieve their sustainable goals. For him, an individual change can create structural change.⁷

Recognizing that individual change will lead to systemic change is an interesting concept, researched and explored by Jonathan Safran Foer in his book *We are the weather* ⁸. What specifically do people need to succeed? And how can we make people aware of the effect of their diet on them and the environment?

To answer those questions, different things can be done, such as an awareness campaign or a digital tool to help them quit animal food products.

A lot of different tools to help individuals reduce their animal food intake already exist. There are many vegan recipe books and websites. The *Quit Meat* app is a digital product that allows you to track your sustainable efforts, helps you become vegetarian/vegan and show you how much greenhouse gases you did not emit (eg: how many hens or how much water you saved). Some companies invent new ways to eat meat like *Beyond Meat* and their plant-based Burger or *Quorn* and their plant-based nuggets. In addition, there are numerous non-profit organizations that help bring awareness to the public through different actions and campaigns.

My first prototype is a chewable protein (vitamin B12, calcium, iron, and zinc) product that helps people quit



eating meat and animal-based products, named *Whole Gum*. The purpose of *Whole Gum* is to bring tools to users for them to decrease their meat cravings when switching from an animal-based diet to a plant-based diet. By proposing different flavors such as sushi or bacon for beginners, and mint or fruit for more advanced vegans, the variety of choices allows the quitter to slowly leave

animal flavors behind. This concept could lead to a digital tool to help them track their diet and definitely quit.

After analysing different food packaging, I figured that most do not show the animal, except if it is a dairy product. Meat and processed products show the food itself. In the same way, plant-based products, such as *Beyond Meat's* products, show the product itself. That is why I decided to put the flavors of *Whole Gum* forward. By showing the steak or roast chicken on the package, I expect the user to first understand what the flavor is, and second become aware of the absurdity of eating animal products. I wanted to show the animal itself at first but it was too far away from the flavor and the user might have been scared to buy it, because such a package is too explicit and too different from what they usually buy.

Whole Gum is a product for any person that wants to quit eating animal products and still have a balanced diet. There are two types of flavors: one for beginners (meat, fish, eggs, mac and cheese...) which is meant to disgust the user, and the second for expert vegans (fruit, mint...) which continues to give you the nutrients needed but without the animal taste. This product like nicotine gum is a medical aid to quit animal products: it is meant to be used during people's transition.

After receiving feedback from peers about this first prototype, I understood that I needed to talk to experts and users fast.



I interviewed Briana Pobiner, an anthropologist specialised in our prehistory with meat, Adam Shprintzen, a professor at Marywood University who studies vegetarianism in the 20th century, Garrett Broad, professor at Fordham University who focuses on strategic communication for social justice and environmental sustainability,

Ruby Lathon, a holistic health advocate for plant-based nutrition, and Marta Zaraska, a science journalist, author of the book *Meathooked*. Talking to them allowed me to understand our history with meat and nutrition, and how our society eats. After taking all their knowledge in, I decided to focus on helping families with children to transition to a plant-based diet.

During the interview, Marta Zaraska explained that showing people the negative aspects of eating meat is not the solution, but showing them how to cook is an effective solution. When children are picky, you need to continue trying, make it fun and make them part of the process.⁹

The main takeaway from the interview with Garrett Broad is that for a new product to be successful, the designer needs to understand people's needs, he/she needs to become one with the user, because the nutritional choices of a family not only depends on education and culture but also on economical factors and their environment.¹⁰

From this point in research, I started to finally see a concept being born in my mind. I was able to synthesize most of what I have learnt through readings, documentaries and experts: this knowledge and theories were finally able to become ideas and concepts.

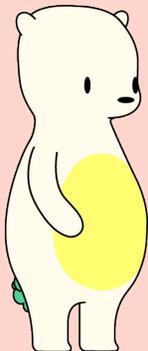
The fact that I decided to concentrate on families, gave me the boost I needed to start planning the rest of my research: I had to understand families and their habits to deliver a valuable product to them.

Methodology

Until this point, my research explored both theories about climate change and the animal food industry, and the broader experiences of potential users and myself. As a human, I will always be biased because of my values and opinions, but it is my job as a designer to try as best as I can to be objective and create for others and not only for myself. The analysis of my documentation made me realize that some findings from my theoretical research and from my experiential research coincide. I now had to prove my reasoning by conducting user testing with families.

I talked to different parents interested in changing their diet, interviewing parents/families, and they taught me a lot about their lifestyle as parents, and their family's diet.

My project solves different problems families with young children encounter, and more precisely how we can help them transition to a plant-based diet. Cooking and planning for a family is difficult, but cooking plant-based dishes for children makes parent's responsibility even more complicated. Children can be picky eaters. Even if they totally understand the importance of eating healthy, vegetables are usually not their favorite.



In addition, Jessica, a parent of three young children, thinks that transitioning is challenging because it involves "learning a whole new way of life, a whole new way of cooking, a whole new way of thinking of planning."¹¹

She also brought up the fact that vegan recipes are usually very complicated to make.

Andrea's and Yumi's families seemed to have found the solution to having their children be less picky: when you do not force your kids and explain the reasons why a plant-based diet is healthier, they accept with it; and when they have the choice of what they eat and help in the kitchen, it makes everything easier.¹²⁺¹³ From these first-hand accounts, I concluded that to help families transition to a plant-based diet, we need to involve the kids in the cooking process. This way they will be willing to try new things and eat vegetables. In addition, the research report *Involving children in meal preparation. Effects on food intake* by Klazinevan der Horst, Aurore Ferrage and Andreas Rytz, highlights that "involving children in meal preparation has effects on subsequent intake; children, who cooked their own meals, had higher intakes of salad, chicken and calories; meal preparation increased positive emotions in the children."¹⁴

Experiments

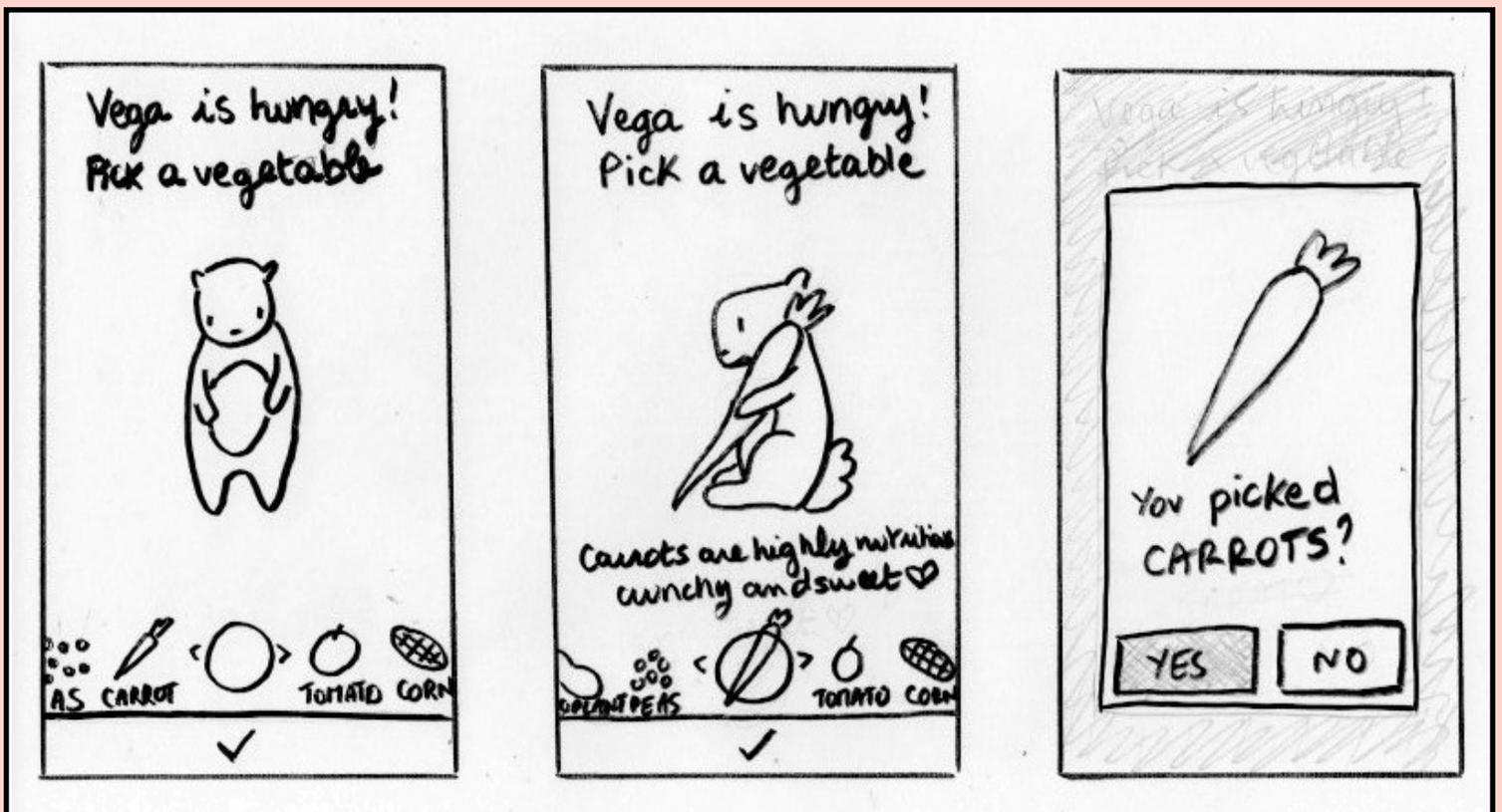
I decided to give children the power in the kitchen and give parents easy-to-make plant-based recipes. My project is built around families' cooking journeys. I decided to conduct experiments with two families with children between the ages of 5 and 15. I first asked the

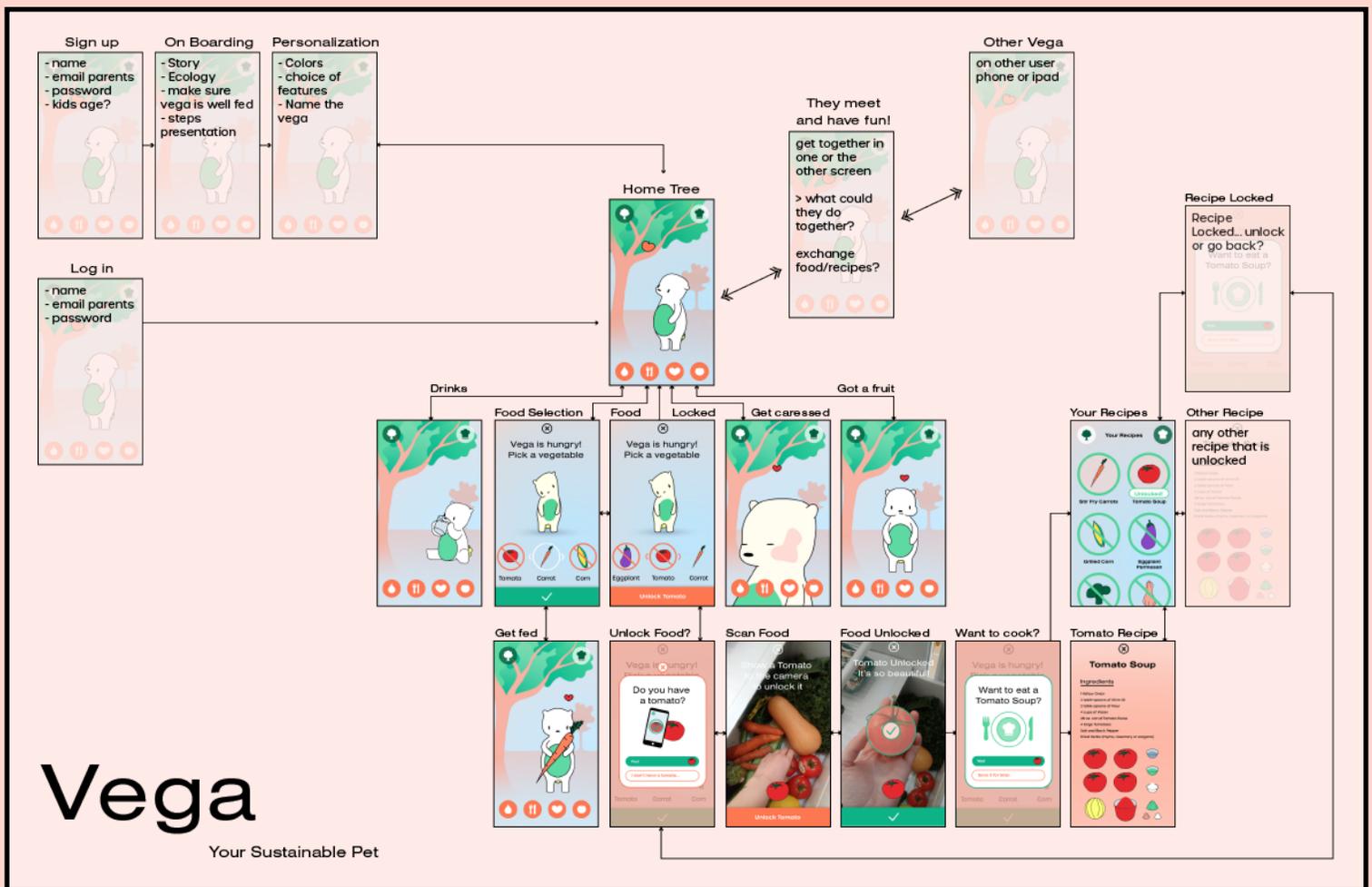




kitchen, what are their feedback, how would they like the recipe steps to look like. For them, the experience was positive overall: "It was enjoyable to do something together, work together towards something we could all enjoy." ¹⁵

However, different challenges were noticed. Recipes are time-consuming when cooking with a child, especially when there is some arguing between the children. Another aspect came in the discussion: the fact that this parent made the children read the recipe out loud before-hand, and also the fact that they had to stop and talk about the danger of hot oil in a pan. This brings me





into having to figure out a way to present the recipe in a kids-friendly way, for their security and education.

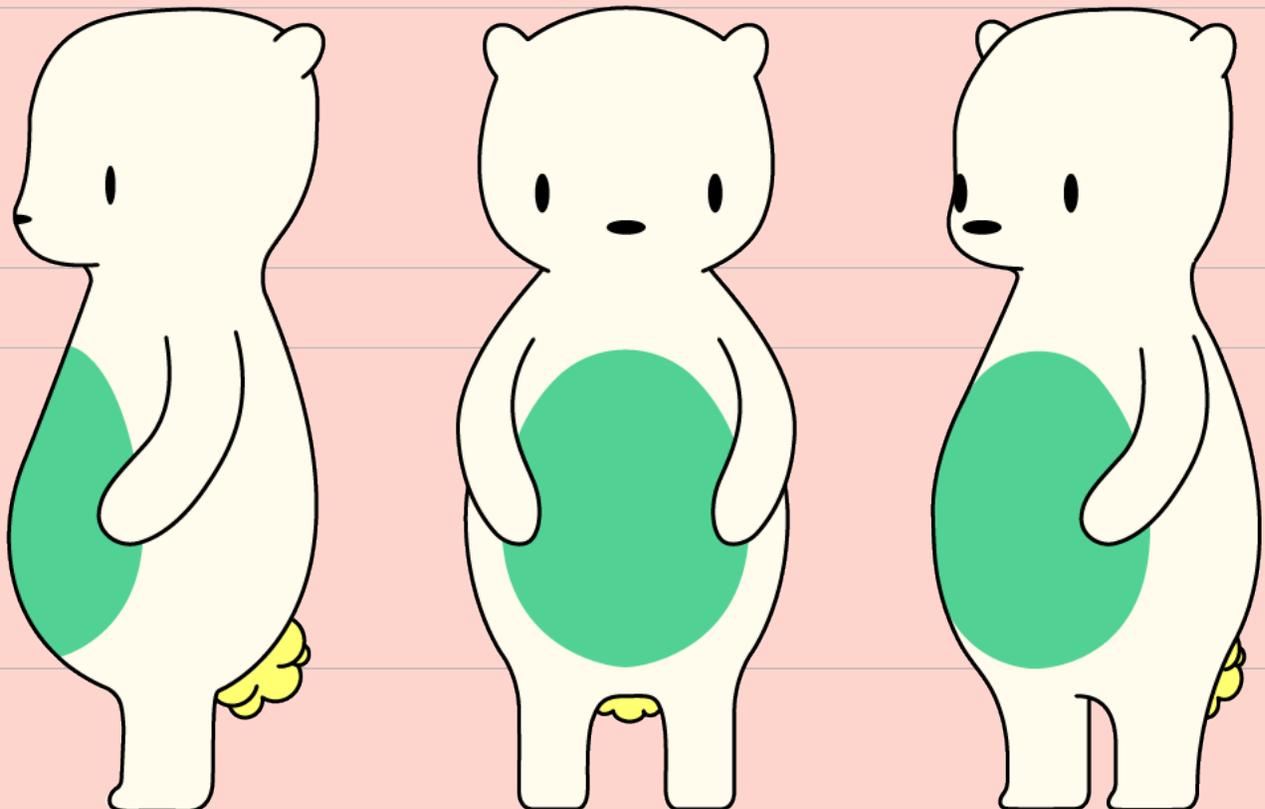
Site Map

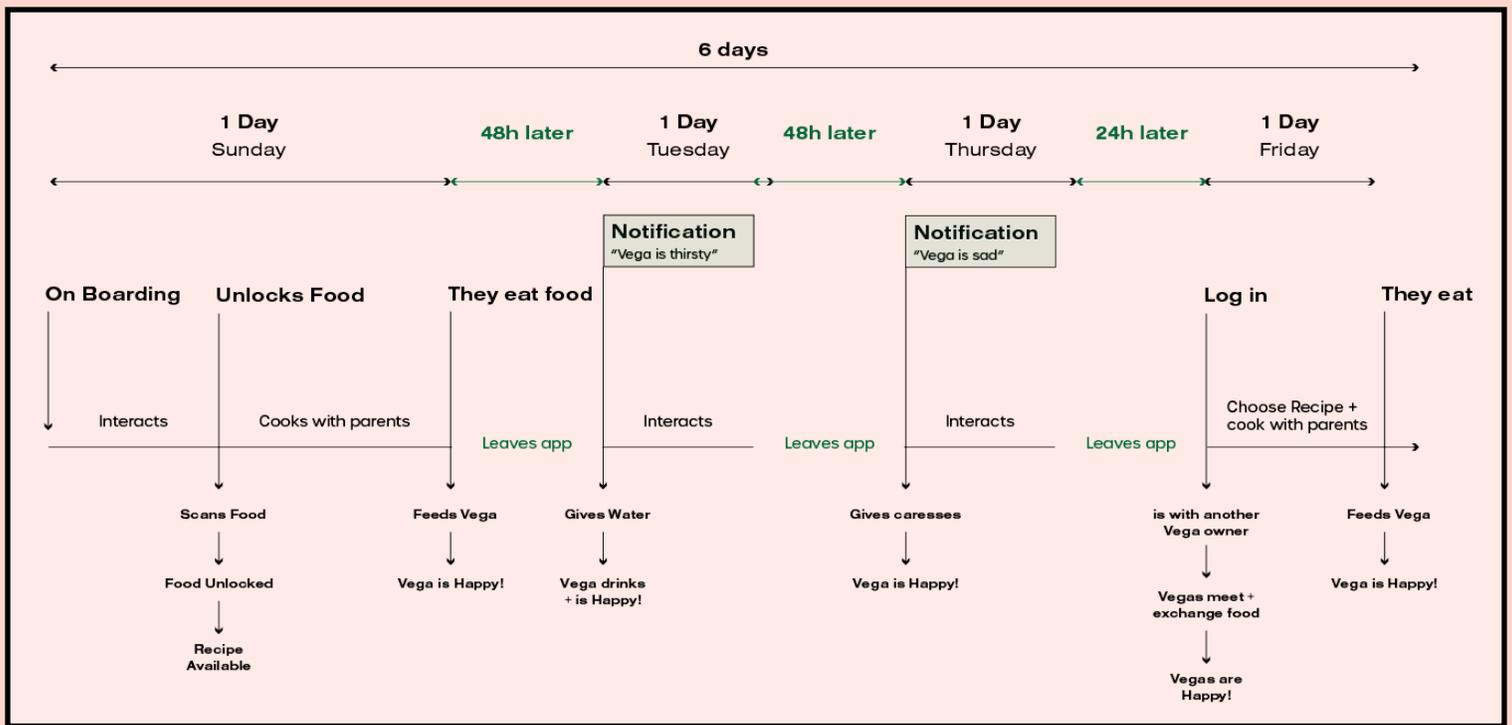
After brainstorming ideas and discussing with my designer peers, I created a sitemap of the application. The main feature is a vegan digital pet, Vega is living its life, as a magical creature. Sometimes the Vega is going to be hungry, sad, bored or thirsty, and you will have to give it water, caresses, fruits and feed it. Each time the child decides to take care of it, it will produce a reaction.

The most important feature is the feed button. The child will have to select which vegetable he/she wants to give it. Some are unfortunately locked. The child will have to "scan" the said-vegetable with its phone or tablet. When the app validates the vegetable, it is unlocked and its

plant-based recipe too. He/she will then have the choice to cook the vegetable recipe now or later. Each recipe is un-expensive, easy and kid-friendly plant-based recipes; they are straight forward and each step and ingredient are illustrated.

There are two other features that are important in the experience: the on-boarding and the creature's meeting feature. The on-boarding will allow the child to learn about the link between his/her diet and climate change, see how the app works and also personalize his/her Vega by giving it the colors he/she wants and naming it. The Meeting feature will allow Vegas to meet others of their kind, such as another kid's. They could exchange recipes and food, play games, hug, etc.

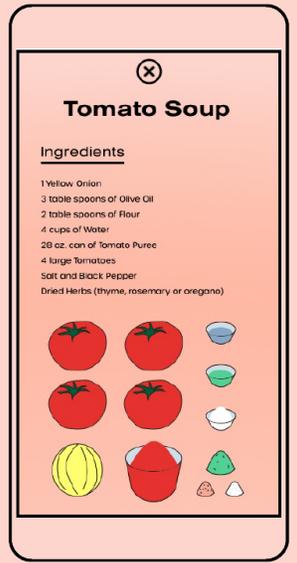
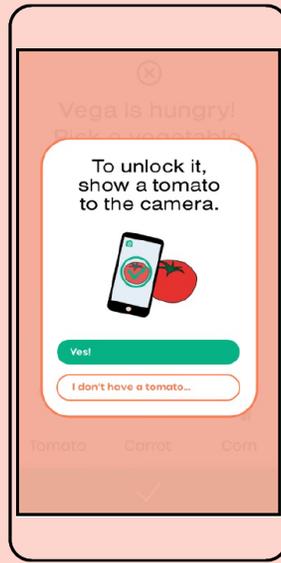
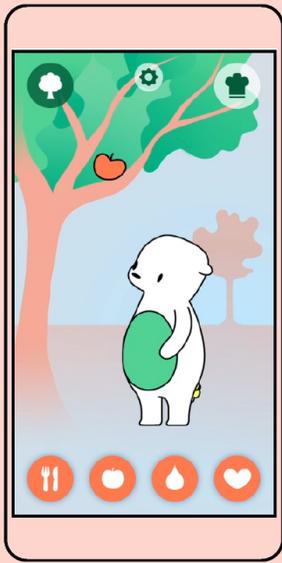




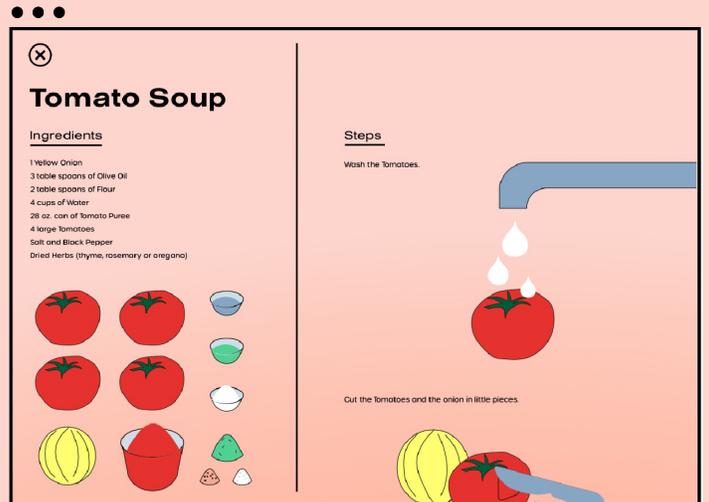
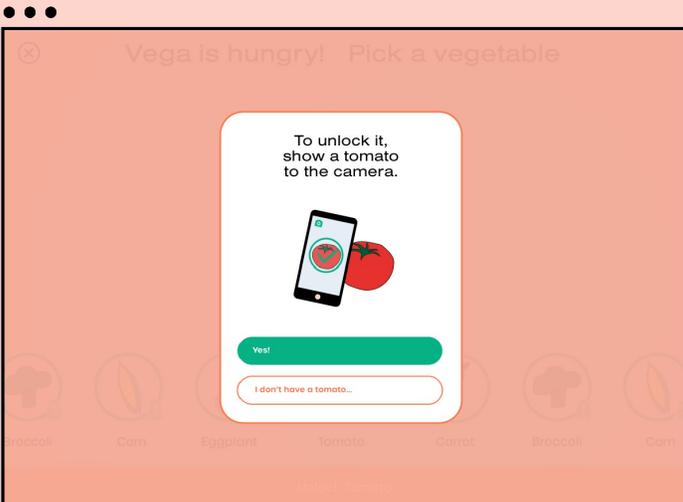
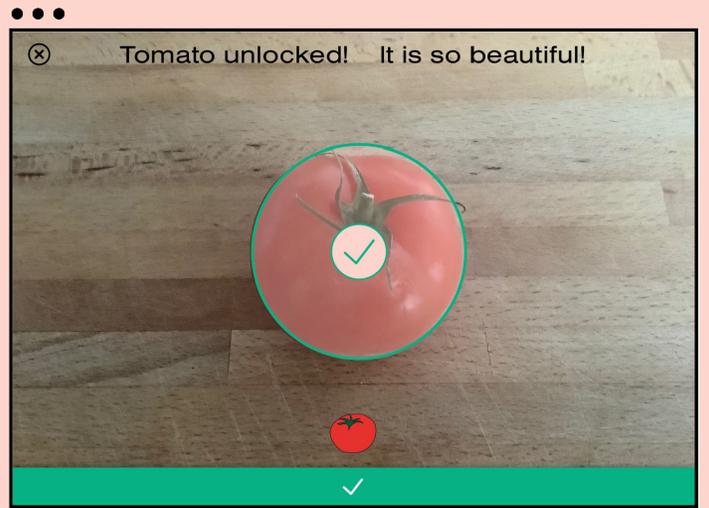
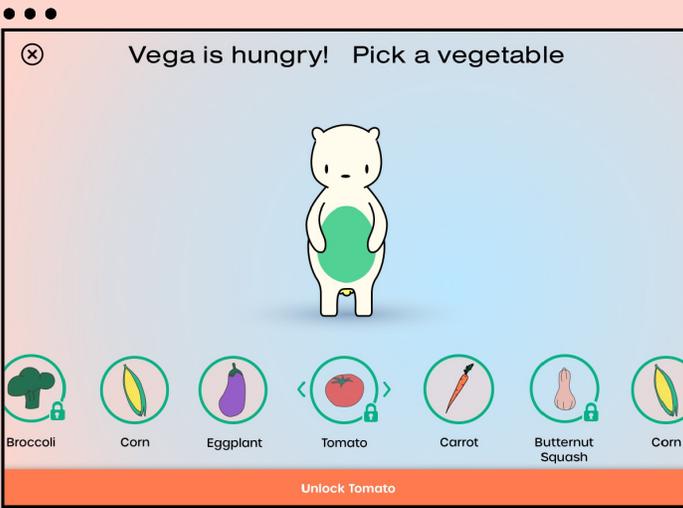
User Flow

The user flow of Vega is quite simple. The kid will mostly interact with the digital pet and each time he/she wants to unlock a new vegetable, he/she will have to show the said-vegetable to the camera of the phone or tablet. Sometimes the family will be willing to try out one of the unlocked recipes: they will as a family cook and eat together. When the kid closes the app, he/she will receive a notification after 48 hours of inaction, to remind him/her to interact with the creature for it not to die.

Every 2 weeks, the kid will receive another kind of notification asking if the family wants to buy a locked vegetable to be able to try a new recipe. It allows the experience to take a bigger place in the family's life.



Wireframes



User Testing

Afterwards, I conducted two user testings, with two kids: a 7 year old girl and a 10 year old boy. Their input and comments were very helpful. Overall, they thought the character was cute and the colors are very nice. I was pleased to see that the two kids understood the overall concept, especially the artificial intelligence scan feature. The icons and messages I included were enough for them to get it right away, which was a relief as it is the most important feature of the product.

During this experiment, I have learnt different things concerning the design of my product's experience and visual design. Some graphic elements were too different from each other (eg: some icons had outlines, some didn't). Some of the messaging was not kid-friendly enough. The locked graphics were not understandable enough: I redesigned them and added a lock icon.

The character animation had an issue too: the action of the character when it is thirsty was not understandable enough. In response to this observation, I modified the animation of this reaction.

In addition to testing the whole app, I also asked them to invent sounds as I was going through the app. It was a very fun activity to do and they had a lot to share with me. The user testings' recording allowed me to include button sounds effects and the character's noises.

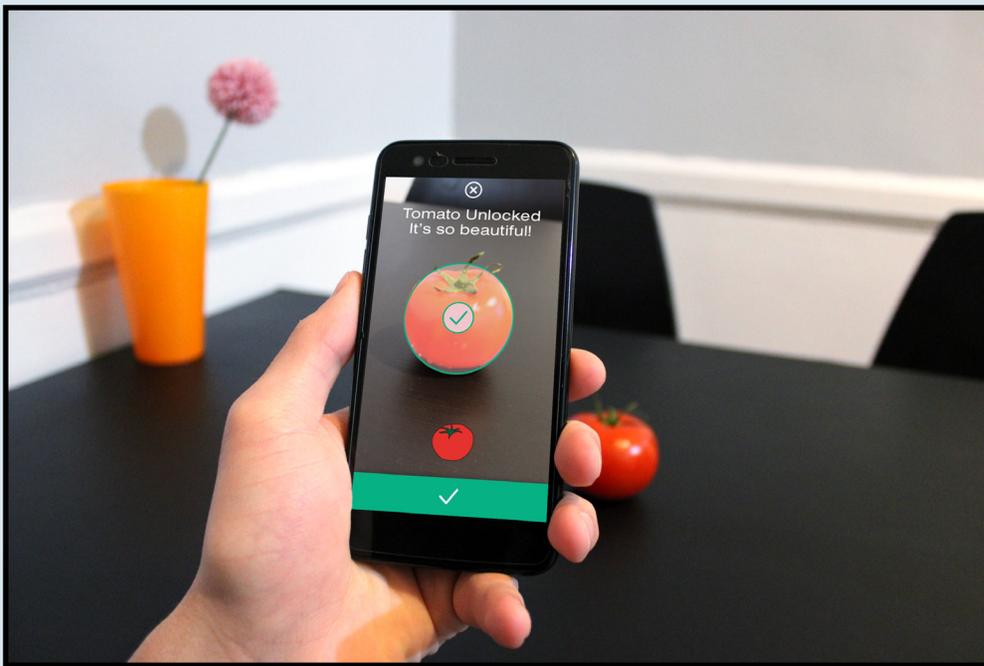
Reflection



This project has been eye-opening for me. I have got to learn about sustainability and diet, which allowed me to make better personal decisions. For example, I eat entirely vegan now, but I still make exceptions when I eat out.

My main goal, as a designer, has always been to find a solution to help the climate change crisis. As explained before-hand, the way Westerners eat and produce food, has a direct effect on people's health and on our environment. As diets and recipes are cultural entities, this product has the power to change the new generation's diet, and in this fashion, future generations' as well.

My intention was to help families transition to a plant-based diet. I believe that Vega achieves this by helping parents who want to implement more plant-based meals in their family's life. They can attain their goal by giving their kids more independence in deciding what they want to eat, as they use Vega.



This whole process of researching and mostly writing my thesis paper influenced me greatly. First of all, I have never designed a product for kids, which is quite challenging as creating such an experience and an interface requires a different approach than designing for adult users. The fact that the experience also needs to include their parents was very new to me, as it implies designing for two very different users. Secondly, I am not a "gamer": designing a kids product or game requires a game design knowledge that I had to acquire through this project. Overall, I am pleased to see that I was able to design a relevant and engaging experience for kids.

I designed Vega with Westerners' families in mind. The fact that it is a mobile and tablet application, makes it somewhat accessible to these families. Unfortunately, some of the poorest families might not be able to access it, if they do not possess a smartphone or a tablet. I hope to work on another means to make it more accessible in the future. What comes to mind is organizing events in public schools, which would allow me to reach a broader audience and make Vega more accessible, as in this case the experience would come to them and not

the other way around. Thinking of Vega as a children's workshop allows me to reach more communities and in this fashion, make a bigger impact on the Western society's future diets.

Right now, Vega's experience is in good shape. I would have hoped to be able to finish all the interactions' animations and all the features (meetings and on-boarding). In the future, I envision Vega to be a brand of itself: creating cuddy toys, accessories, a board game, and as stated earlier events in schools. Much like Hello Kitty, I imagine Vega to become an iconic character that every child wants to interact with. This could lead to making plant-based diets not only trendy but part of our culture as well.

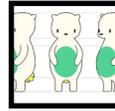
My overall experience when researching and designing Vega was to understand how to incorporate an educational game into kids' lives. The question of reward has taken a huge place in my brainstorming process and iterations. I first had the idea to link each vegetable with a point system, but after various discussions with peers and game designers, I understood that the most important was for Vega to be an experience enabler and not just a game.



List of Illustrations



Miah



Character Design
Vega Illustration



Mind Map



Paper Prototype



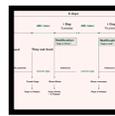
Brainstorming



Sitemap



Reducatarian
Summit



User Flow



Whole Gum



Phone Wireframes



User Testing
Cards Game



Tablet Wireframes



User Testing
Cooking



Experience
Interaction with Vega



User Testing
Drawing Activity



Experience
Interaction with Veggie



User Testing
Drawing Results



Experience
Cooking Recipe

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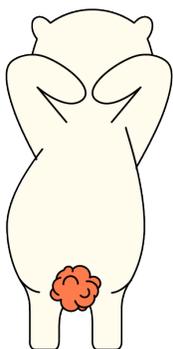
11 Jessica. Interview by Lucie Bole. Video Chat. New York, 2019.

12 Andrea. Interview by Lucie Bole. Video Chat. New York, 2019.

13 Yumi. Interview by Lucie Bole. Phone Call. New York, 2019.

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15 Aya. Interview by Lucie Bole. Email. New York, 2019.



Rdv on Vega's website

