Hi, my name is...

# REBECCA <span style="color:red">RAHA</span>
# RADPARVAR

# Hello! I'm Raha,

a Human-Centered Design Researcher and Strategist! I am currently studying Integrated Innovation at Carnegie Mellon and have a background in Mechanical Engineering and Human-Centered Design.

I explore and analyze how people experience products, services, and their environments to develop insights on how to better design these experiences for real-world users.

I thrive in environments where I can be agile and explore. I enjoy working in interdisciplinary teams where I am able to constantly learn from experiences, literature, and peers, while sharing my experience and expertise as well.

I believe in developing solutions that keep users at the heart of the process, regardless of the medium. As a designer, I champion good ideas, no matter their origin, and advocate when passionate about a feature or insight – yet am flexible and pivot when the insights lead to a new direction.

Here is a taste of my work...

# table of contents

# pubbly love

Pubbly Love was made in response to prompt to develop an Internet of Things product which connects or mediates two people in a relationship.
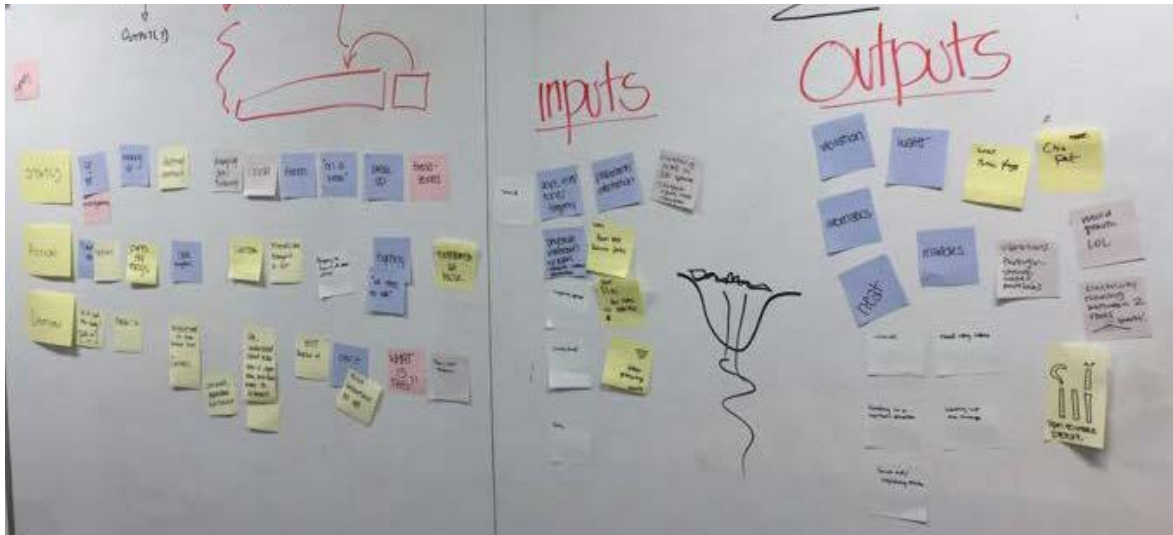


## ideation

As a team, we wanted to work on romantic relationships. From there we chose to focus on the ambiguity in modern day dating. The team began by mapping out their current relationships and their phases. We spoke about these phases and chose to break them up into 'stages', 'actions', and 'emotions' to better understand the nuances of relationships.

From there, possible inputs and outputs were brainstormed to understand what we could sense and output. These were they discussed in tandem with the phases. As a team, it was decided that the final design should focus on moving forward or backward in a relationship - as opposed to the phases one may be moving away from or towards.

# first iteration design

It was decided to use water as a metric of where you are in the relationship as water is easy to manipulate and carries a weight that can a user can feel and understand - enabling something abstract ("moving forward") to become tangible.

Initially, we wanted to use a cup which users would continually fill to indicate their (hopefully) increasing interest in the relationship. It was decided that when both users filled the cup to its maximum capacity, the cups would pour over to create a waterfall effect to indicate both users are ready to speak to one another.

After discussing this idea further, the team chose to move to vibration instead of pour over effect. A speaker and solenoid were explored for this effect but they were not compelling to the team. Finally, the team chose to add bubbles to the system instead.

The bubbles were the used to indicate users were at the same stage of the relationship (mapped to equal levels of water), with a light indicating that both users are ready to talk.
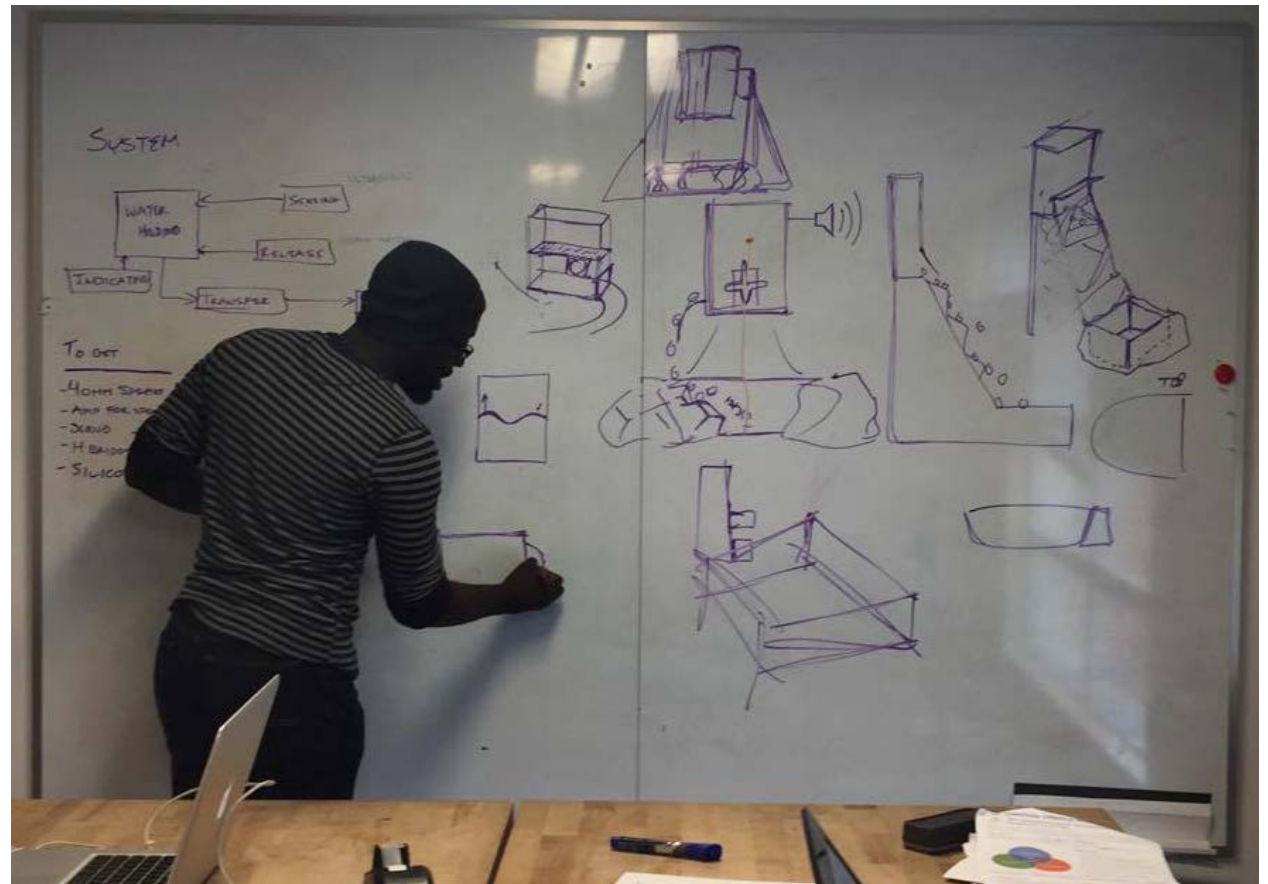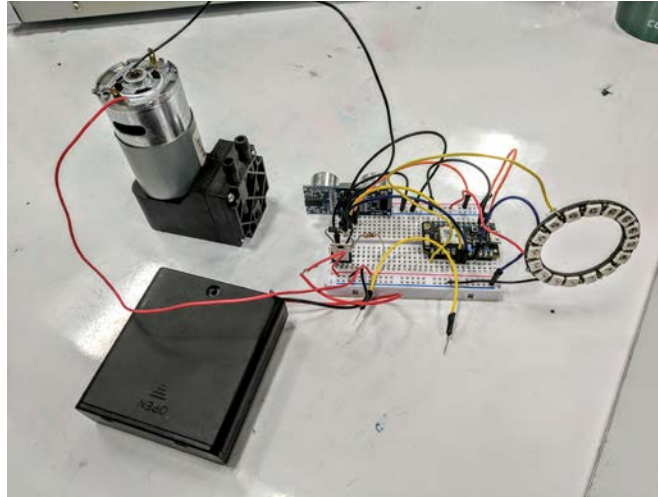
# technical details & difficulties

The Vase is made up of three parts:

**Water Chamber:** The upper chamber of the vase holds the water poured in by the pair. At the top will be the ultrasonic sensor attached and facing into the vase. The six walls of the vase were made from laser cut co-polyester and glued to shape using a glue gun. After the glue had set on the outer walls the silicone sealant was added to the inner walls.
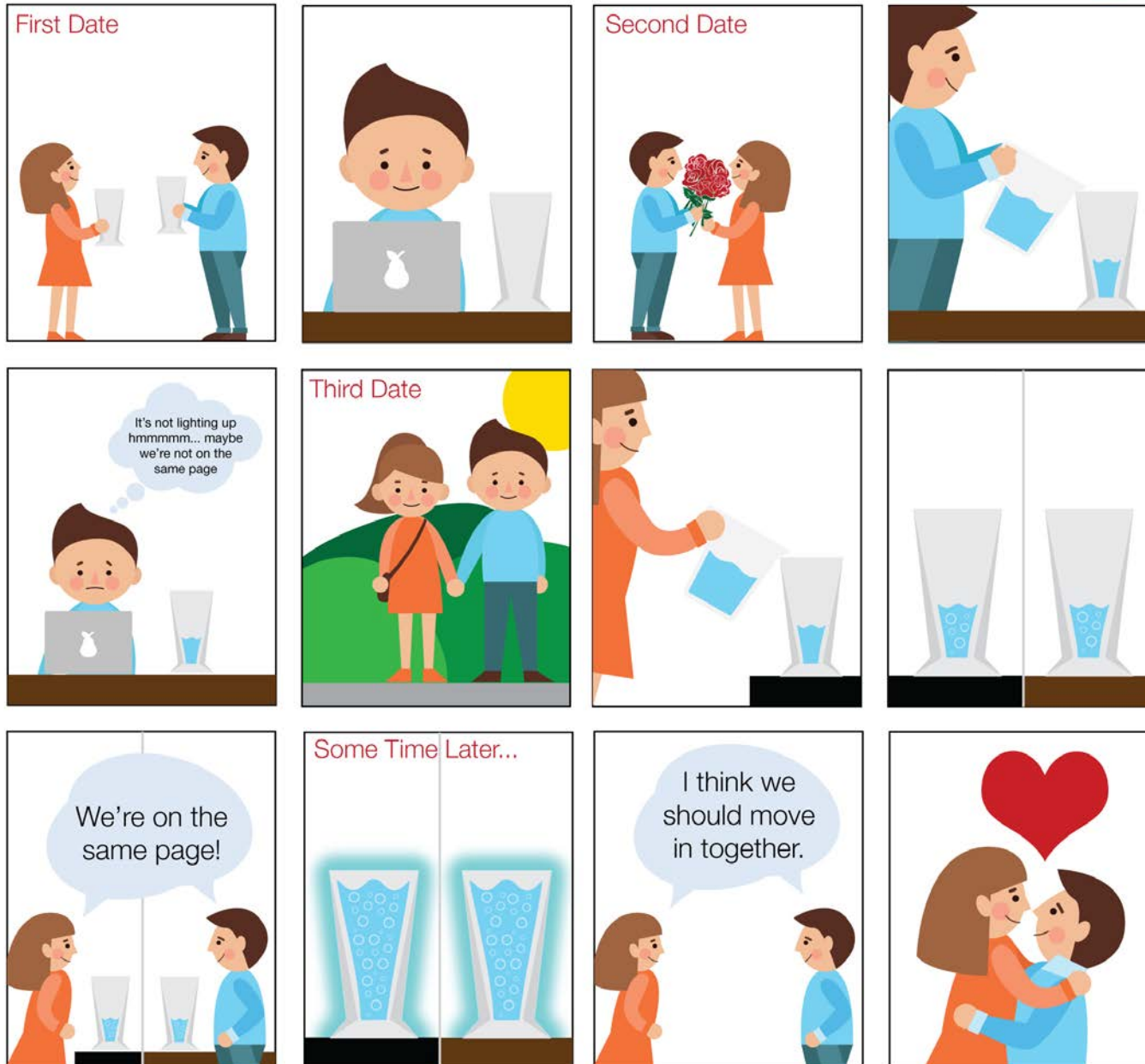
**Bubble Valve:** The one way valve can be found in soap dispensers. You can unscrew to them and look at the pump. The lower section is made up of a one-way valve and a spring. After cutting it off you can pull the spring out and hold onto the valve. We used a pipette to create a funnel for continued airflow but prevent the ball bearing from getting too far from the valve. The valve was then glued into the bottom face of the water chamber and sealed with the silicone sealant. Then seal the bottom face to the water chamber. These valves were very unreliable, as the ball kept getting lodged.

**Pump and Electronic Housing:** The bottom part of the design is made up of six sheets of laser cut co-polyester. Since it didn't require the ability to hold water we didn't add any waterproofing silicone.

# Pubbly Love Storyboard

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**First Date**

**Second Date**

It's not lighting up hmmmmm... maybe we're not on the same page

**Third Date**

We're on the same page!

**Some Time Later...**

I think we should move in together.

## future iterations

As this is an ongoing project, the team is looking to explore additional forms and interactions that could convey the same facets of intimacy. Stay tuned for more to come!

# nutrition kitchen

Nutrition Kitchen was made in response to a prompt to develop a product or system solution to fill the educational gaps in Troy's Ark Community Charter School's 6th Grade Students' curriculum and learned knowledge.



## user research

Preliminary user research was conducted through two main methods:

– Interviews with faculty, staff, and students at Ark Community Charter School

– In-class observation of class periods

A number of key insights were found:

– Students lacked proper support at home for formal and informal education

– Educators had to spend an excess of time on core concepts due to the lack of in-home support for students

– All students were furnished with a laptop in an effort to improve their digital literacy

– Students had a difficult time maintain focus if not actively engaged

# co-design activity

A co-design activity was conducted to better understand student's familiarity with ingredients and meals.

Students were given ingredients and prompted to develop meals they knew. They were able to use a card as many times as desired and even make their own when they felt an important ingredient was missing.

This activity informed our work, as it provided us with a better understanding of what foods students were familiar with - as well as where there were opportunities to teach students about healthy alternatives.

# design & development

Based on initial interviews, observation, and co-design activities, a preliminary software was developed to user test for further insights. The software was tested with students early and often to allow fir iterative and user-centered improvements.

The initial software iteration of Nutrition Kitchen was developed with MIT's Scratch software, for ease of development, with the visual assets being developed through Adobe Illustrator.

The software enabled students to make meals and outputted the nutritional facts for each meal after it was completed.



# usability testing

Usability testing was conducted by prompting students to develop any meals of their liking. The following key insights were found:

– Students loved making meals but had difficulty developing meals on their own

– Students had a difficult time differentiating what certain ingredients were

– Students needed more information about the nutritional facts of each individual ingredient

– A more well-rounded view of nutrition and meal consumption was necessary to enable students to balance their nutritional choices throughout the day and on more facets than just calorie count

# second iteration & testing

After the initial round of user testing, the software was moved into Adobe Flash for development. From here an informational screen, educational materials, and further complexity were added to the game.

Once again, paper prototyping was utilized in order to understand if the proper content was being delivered through the appropriate methods.

The information screen taught students how to use the software and pointed them to educational materials before and during use throughout the game. Educational materials included information about both meals and ingredients.

# final design

After slight adjustments to the content and its delivery, the game's final iteration was developed. A full day model was developed to add further complexity by allowing users to make three meals and two snacks - enabling students to balance their nutritional choices throughout the day and on more facets than just calorie count.

In order to gauge the impact of software on student's understanding of nutrition, a pre- and post-software-use quiz was implemented. There was an overall improvement in test scores between the pre- and post-quizzes indicating some gained value.
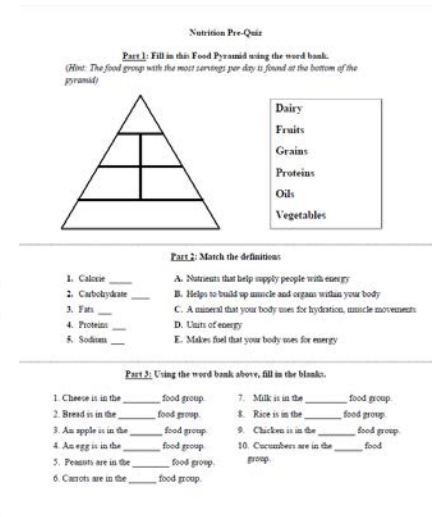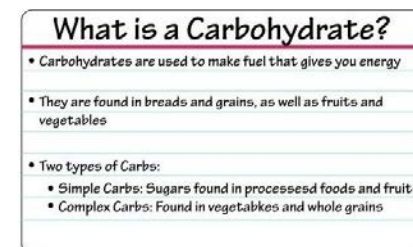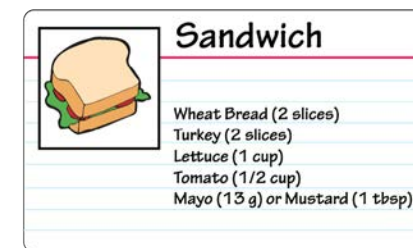
# recommendations

While Nutrition Kitchen provided value for the Ark Community Charter School, much more value could have been provided through more robust software capabilities. Had the project been able to continue, a more dedicated software lead would have been necessary.
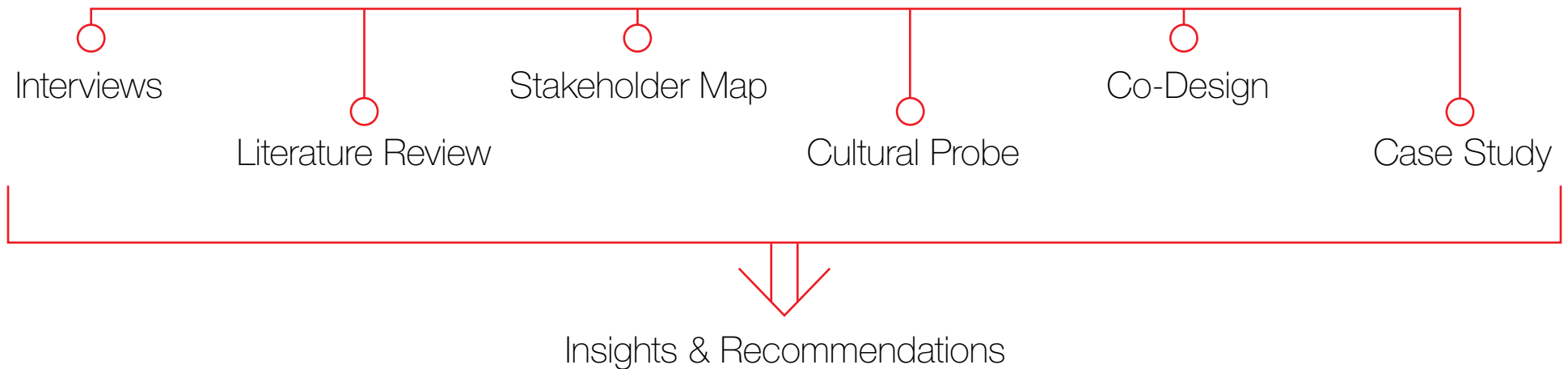
Additionally, more user research and testing would be integral in understanding what features students found most beneficial and what features should be added or removed.

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# nav. health services

The Navigating Health Services study was a Design Research study focused on understanding why insured young adults who are newly independent (either graduate students or young professionals) and have insurance and access to health services choose not to go to the doctor as often as recommended and necessary.

## research timeline

Interviews

Literature Review

Stakeholder Map

Cultural Probe

Co-Design

Case Study

Insights & Recommendations

# interviews

Seven interviews were conducted with young adults in varying locations around the country and genders to provide a diverse set of viewpoints about health care services. These interviews were used a starting point in order to decide what human-centered research tools should be employed next.

## Interviewees



## Interviewee Locations
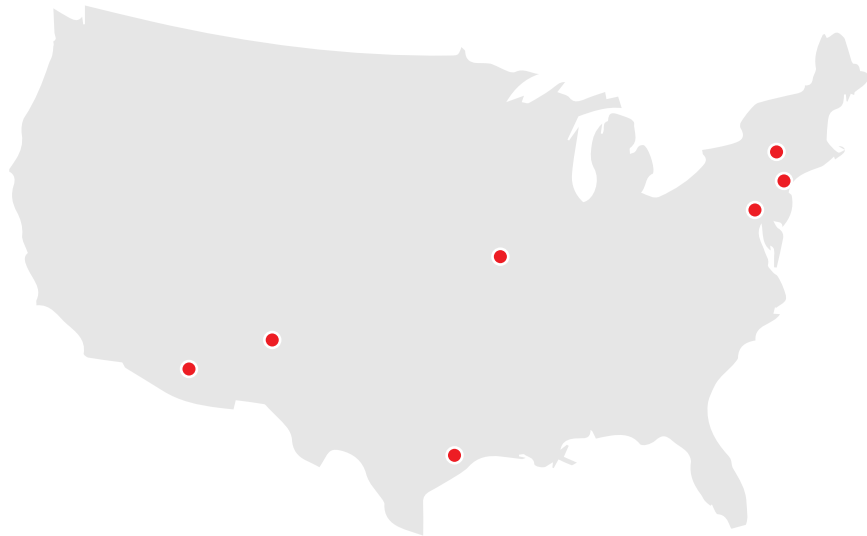


## Key Findings

– Routine and reminders are important when it comes to regular healthcare.

– Males decreased perceived need to see a multitude of health professionals (no OB/GYN or birth control prescriptions necessary, less social pressure to see a dermatologist) leads them to receive less healthcare overall as they are not used to regularly seeing any health practitioner.

– Users with doctors within their families receive more regular but fragmented care.

– Users are more often deterred by using health services when receiving good news than bad news.

– Users feel that a lot of time is wasted going to see health professionals because they're not going to uncover any new data.

– Users relate "feeling health" to being healthy.

# literature review

A literature review was chosen a supplemental method for understanding why people do not receive proper medical care when they have access to it. This method was chosen as to illuminate additional areas to focus human-centered activities and research on.

Taber, Leyva, and Persokie's publication "Why Do People Avoid Medical Care? A Qualitative Study Using National Data" was reviewed.

## Key Findings

– Most insights from Taber, Leyva, and Persokie's study were consistent with the qualitative research conducted thus far.

– One outlier, that contradicted all information however, was that people avoid medical care due to unfavorable Physician experiences - when asked about this, most users noted they would just change health care providers.

# stakeholder map

A stakeholder map was developed to understand the major players in Health Services. Stakeholders which users commonly interface with have been circled to understand which stakeholders effect user's experiences and therefore what interactions in their journey they are likely to change or color their perception of Health Services and long term decision making.

## Key Findings

– Better understanding of areas where the largest, noticeable improvement can be made in terms of patient experience. (Not to discredit systematic change at a higher level.)
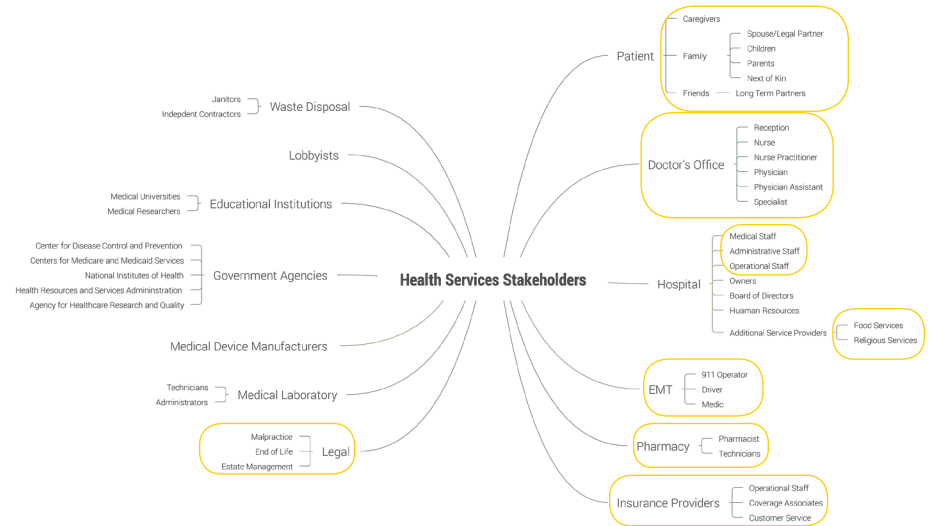
# cultural probe

A cultural probe was conducted on users to understand their perception and experiences while navigating throughout the Health Services system. Users where given a set of photos and asked to go through each and describe how each piece of the process makes them feel. This activity was conducted to get more in-depth information about pain points as opposed to just describing the entire experience as "annoying", "a waste of time", etc.

## Participants



## Key Findings

– Users feel a lot of time is wasted and work is duplicated throughout the medical process.

– Users use online resources - such as WebMD - to look up ailments even though they know they're unreliable and they shouldn't.

# co-design

Two Co-Design activities were conducted to understand users current and desired General Physician experiences. These activities enabled users to speak of their last (typical) General Physician's visit and discuss pain points, as well as create their ideal doctor's office.

## Participants



## Key Findings

– Users waiting room experiences last longer than most General Physician visits and the waiting room experience is a major pain point.

– Users prefer offices that are more personable and have doctor's own person artifacts within them.

– Users prefer phone interactions with Physician staff - as opposed to digital communication - due to the current state of health communication software.
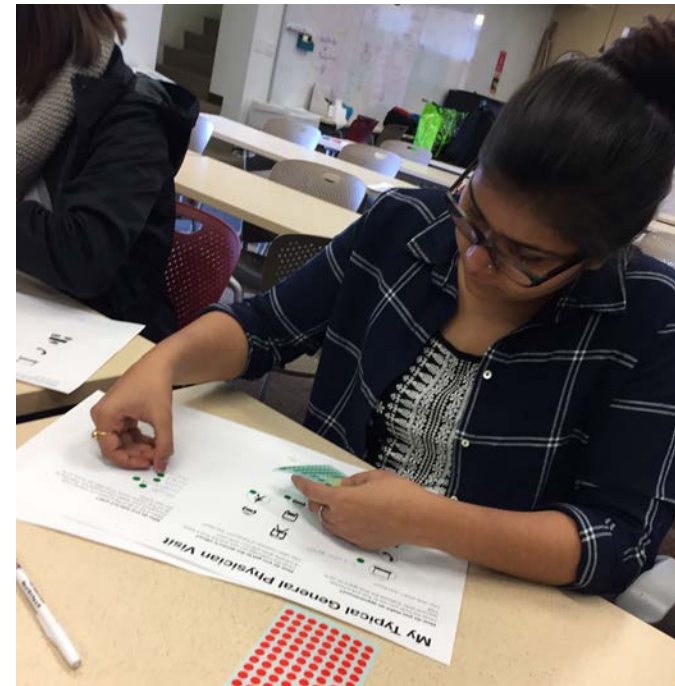
# case study

During the period of this project, the opportunity to do a case study was presented.

## Demographic Information

– Female
– Mid-20s
– Recently Relocated to Pittsburgh, Pennsylvania

## Key Findings

– Insurance companies do not have enough information easily accessible to their customers - leading to wasted time for both customers and corporations.

– Procrastination can lead to not being able to see a Physician when necessary due to other roadblocks.

## Timeline

*Early October*

Skin ailment appears.

*Mid-October*

Considers going to the doctor.

*Early November*

Attempts to make a doctor's appointment after prompted by recommendation, insurance is not accepted.

*Late November*

Ailment has grown tremendously and is considered "too large" to bear.

Attempts to make doctor's appointments, spends multiple hours multiple days but cannot find a location that accepts her insurance.

*Early December*

After approximately 5-6 hours of time spent calling insurance and Physician offices, finds one of two options within a mile or so which accept her insurance and is able to make an appointment for the following day. Loved the doctor and would definitely return.

# insights and recommendations

## Final Insights

– Males and Females must be treated differently throughout the health care services process on the administrative end to ensure they are properly capitalizing on the necessary services available to them.

– The time users spend waiting could be better capitalized on to enable them to feel that their time is being properly utilized and their efforts are worthwhile when navigating health services.

– Most users do not go to the doctor until something is unbearably painful or physically obvious/bothersome.

– Users' procrastination and administrative health service barriers make it unduly difficult to see Physicians in a timely manner. Health services are not timely, yet users procrastinate.

## Product Opportunities

– Improved Data Information Systems to avoid duplication of information and access to medical records.

– Better waiting time usage - such as provided space to work, more social seating areas, etc.

– Embedding the doctor into other necessary experiences. (For instance, having doctor's on staff for large corporate campuses enabling users to leave work for minimal time to see a doctor and incentivizing other patients to be on time and leave on time to make their work-day appointments. Similar to how Etsy has yoga in their office building.)

## Guiding Design Principles

– Male and Female medical services should not and cannot be managed the same way due to different biological and habitual needs.

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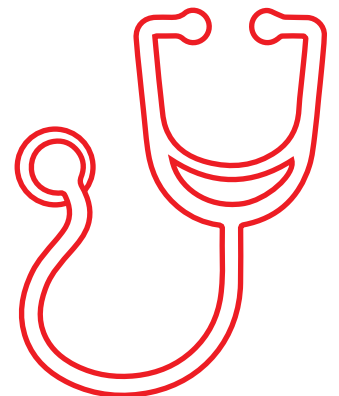
# community compost

To improve Millennials' current experiences with their kitchens and food consumption.

## the opportunity space

In order to properly understand the problem space, initial research was conducted and findings were assessed. From there, the team chose to use the SET (Social, Economic, and Technology) Factors method of organizing everyone's findings. By categorizing research findings in three categories, the team was able to find trends and areas of opportunity.
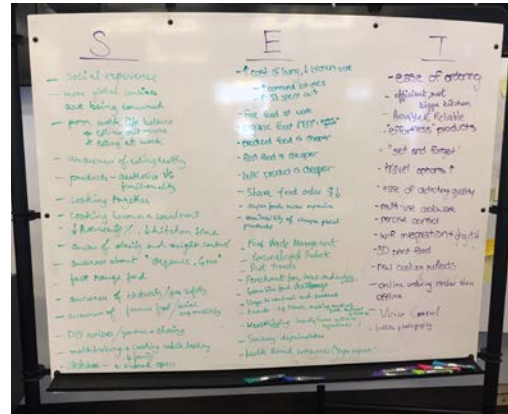




## product opportunities

After initial analysis of findings, the team brainstormed Product Opportunity Gaps (POGs) in order to understand potential focus areas and organized these by affinity mapping.

After brainstorming, the POGs were narrowed and 'Kitchen Waste User and Management' was chosen as the team's focus area.
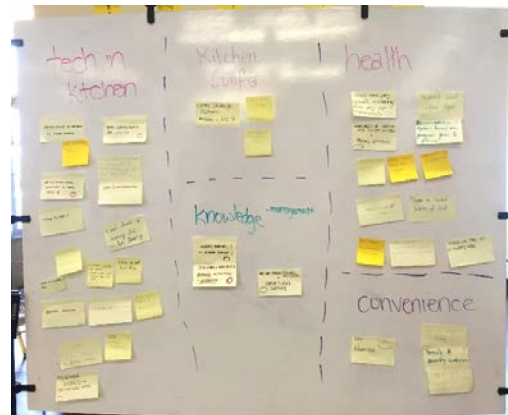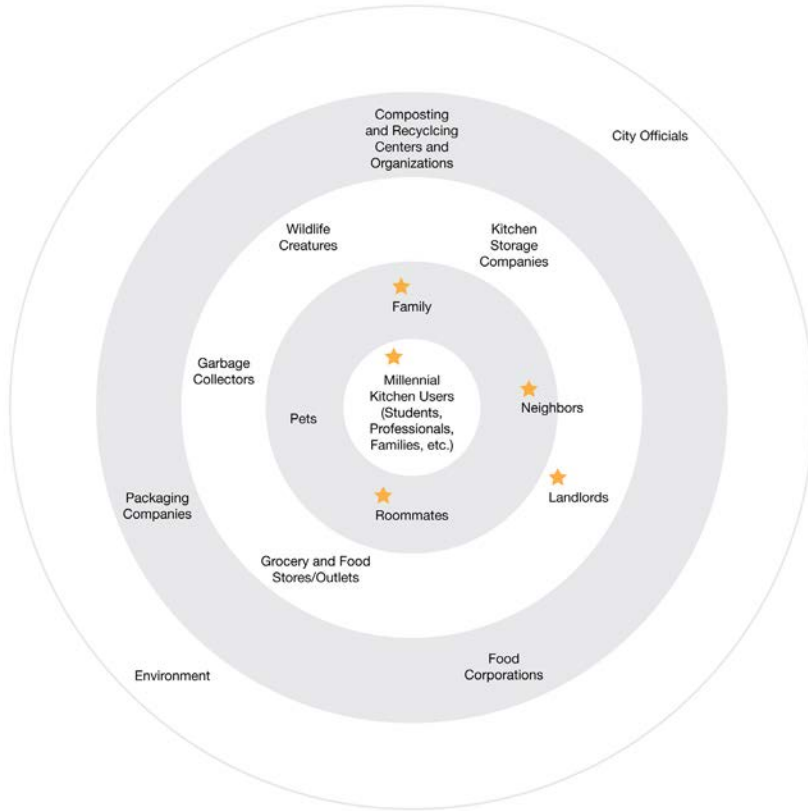
Key Stakeholders

# stakeholder map

A stakeholder map was developed to understand central users and auxiliary stakeholders in Millennials' waste management routines.

# user interviews & insights

25 user interviews were conducted with Millennials from a range of lifestyles and 3 interviews were conducted with waste disposal experts. This research was synthesized and analyzed using affinity mapping in order to guide the Brainstorming and Concept Development process.

It was found that Millennials were interested in sustainable and eco-friendly measures but felt that it didn't properly integrate in their lives or were highly misinformed on how these systems worked. They also felt that no incentives were in place to encourage usage.
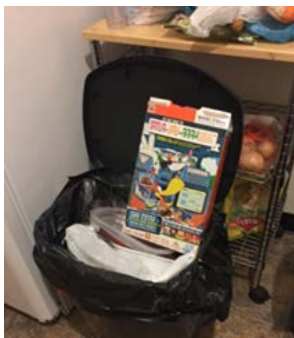
"No knowledge about composting."

"I don't have enough space to properly throw away all of my garbage."

"I want to be eco friendly."

"Too much smell?"

"Compost attracts rodents."

"I used to compost and recycle but it's not as easy here in Pittsburgh."

"I'm interested in composting, how does it work? Can you tell me more about it?"

"Is it expensive?"

**Joe**, 30
Accountant

- Lives with family in a house with a backyard
- Limited kitchen space of old building
- Interested in composting
- No idea where to start
- Owns a car
- Multiple shopping trip per week

**Mary**, 23
Graduate Student

- Rents an apartment with two roommates
- None of them owns car
- Inconvenient to go grocery shopping
- Buy large amount of food to last a week
- Throw away expired food
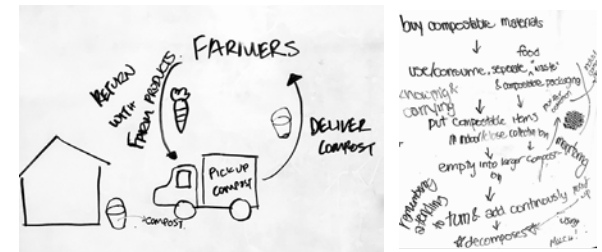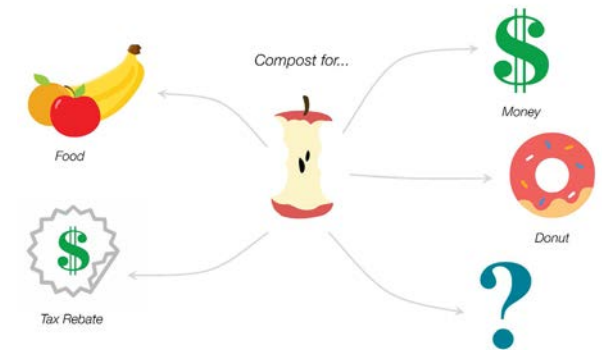- Does not compost due to limited space

# persona development

From here, personas were developed to better understand central users and stakeholders.

# brainstorming & concept development

Based on our initial research, user interviews, and personas, concepts were brainstormed, developed, and debated. The team landed on a service model - where you could trade compost for farm goods more compelling and chose to move forward with that idea.

Different models of compost trading, for both reward structure and location, were explored. After speaking with more Millennials about their weekly shopping and social habits, it was decided that the model should fit into Millennials' lives either effortlessly or as an excursion - to at least garner excitement - for this reason a Farmer's Market was chosen as the trading location. Once the location was decided, further thought went into the item traded. Finally, a donut was chosen for two reasons: first, to garner excitement for Millennials, and second, because it was a low cost expense for farmer's and after all... donuts are *always* in season.

# roadblocks

Based on the initial research, user interviews, and personas, concepts were brainstormed, developed, and debated. The team found a service model - where you could trade compost for farm goods more compelling and chose to move forward with that idea.

Different models of compost trading, for both reward structure and location, were explored. After speaking with more Millennials about their weekly shopping and social habits, it was decided that the model should fit into Millennial's lives either effortlessly or as an excursion - to at least garner excitement - for this reason a Farmer's Market was chosen as the trading location. Once the location was decided, further thought went into the item traded. Finally, a donut was chosen for two reasons: first, to garner excitement for Millennials, and second, because it was a low cost expense for farmer's and after all... donuts are always in season (and relatively cheap for farmers to produce).



# stakeholder interviews

A general model of the interaction was developed by the team and then stakeholder interviews were conducted at a farm, a farmer's market, and the Phipp's Botanical Garden - which also holds a weekly farmer's market - to understand the viability of a service and the interest level of farmers for trading compost for a donut.
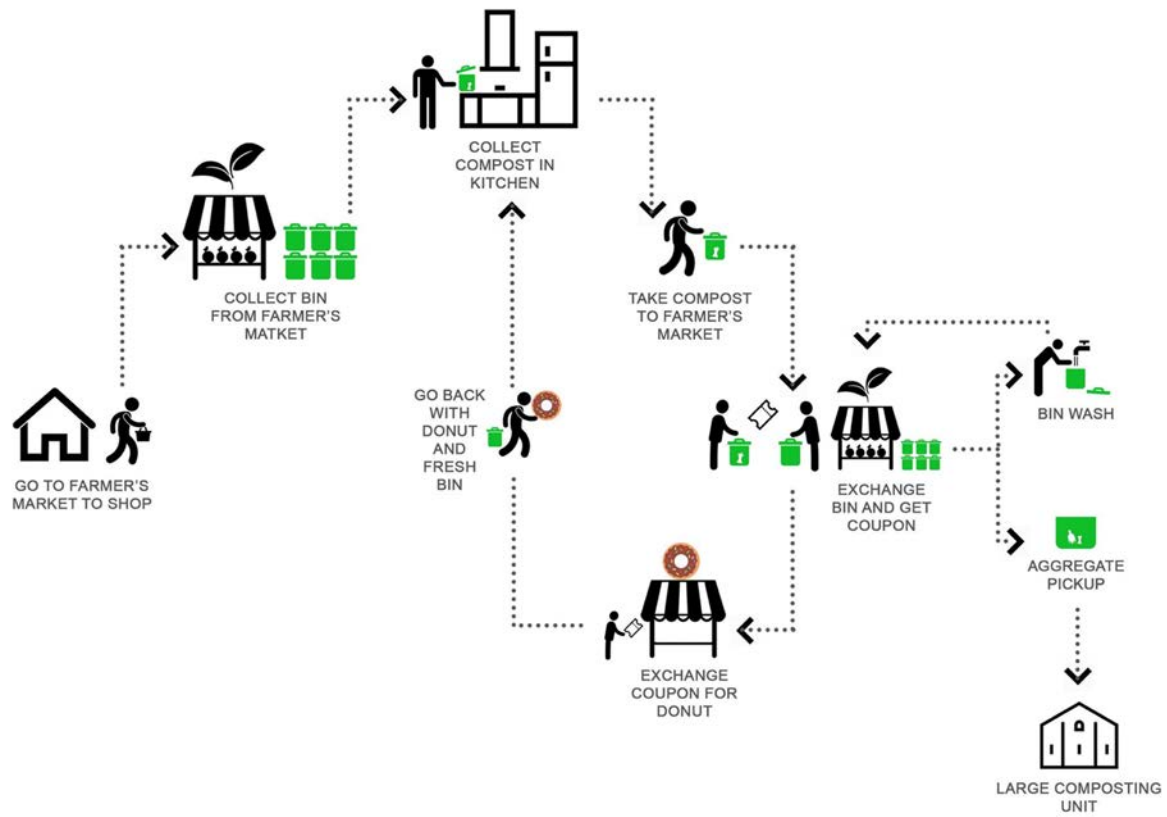
These interviews uncovered farmers' concerns while providing important information about whether or not farmers would participate in a program which traded raw waste for small incentives.

# final concept

Stakeholder interviews validated our concept, while providing us with important areas to further explore. It was decided that raw waste would be traded - as opposed to compost - to enable Millennials to trade on a weekly basis and avoid any negative connotations about composting. From here, a final service model, seen on the left, and literature, seen below, were developed to educate and enable Millennials to easily trade raw waste for compost.

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GO TO FARMER'S MARKET TO SHOP

COLLECT BIN FROM FARMER'S MATKET

COLLECT COMPOST IN KITCHEN

TAKE COMPOST TO FARMER'S MARKET

GO BACK WITH DONUT AND FRESH BIN

EXCHANGE BIN AND GET COUPON

BIN WASH

AGGREGATE PICKUP

EXCHANGE COUPON FOR DONUT

LARGE COMPOSTING UNIT

# (wi-)fido

(Wi)-Fido was a two week sprint project focused on improving the current presentation experience with 4612 Forbes Ave as a primary case study.

## user research & scoping

Initial research was conducted through observation and think-aloud usability tests. Both novice and advanced users were observed to understand initial paint points as well as learned idiosyncrasies.

A comprehensive storyboard was developed to understand and visualize the presentation process, in yellow, and all of is respective pain points, in red.
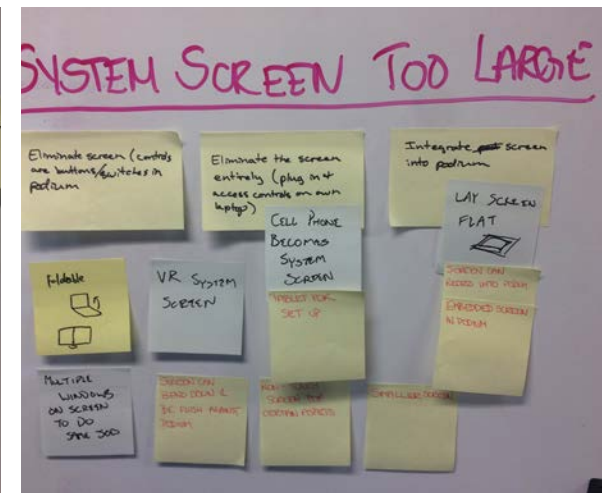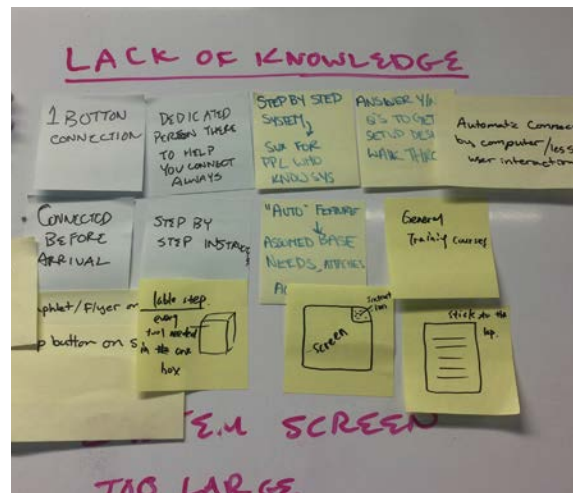
From this activity, four main pain points emerged:

– Too many wires

– Screen blocking audience view

– Podium clutter

– Lack of support
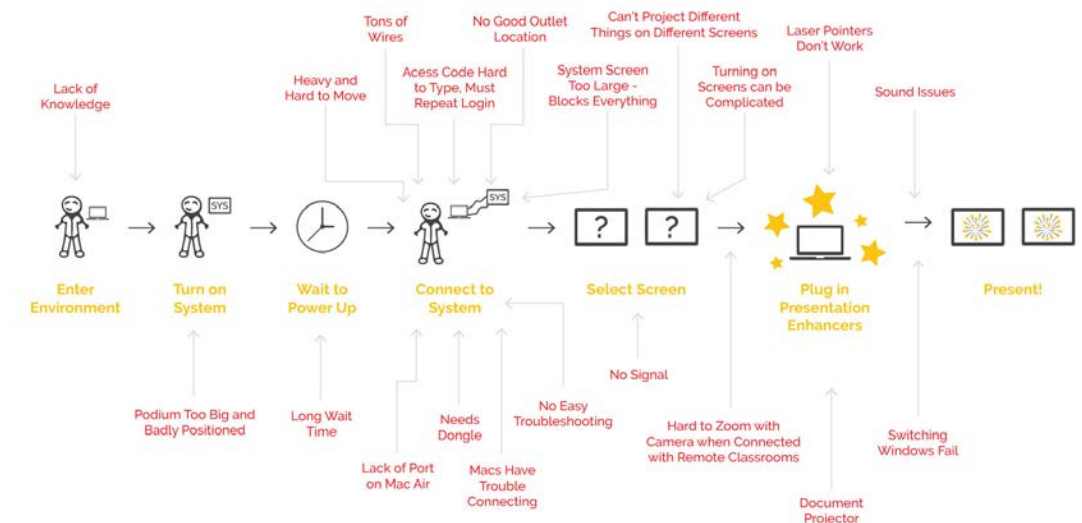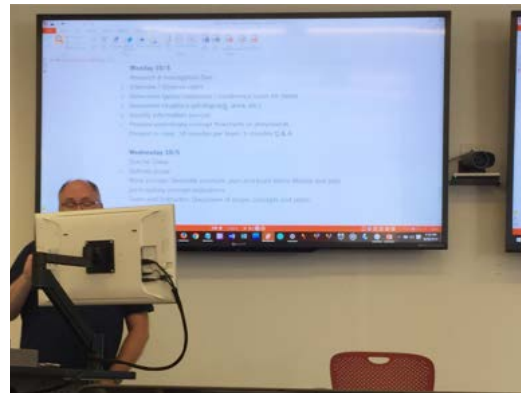
# ideation

After refining to four areas of importance for pain point remediation. We began brainstorming around those areas as a team. A visual of these brainstorms can be seen on the right. The brainstormed ideas were then paired down, and the following solutions were chosen for each pain point.

**Too Many Wires:** Wireless Connect

**Screen:** Embed with Pull Out Option

**Podium Size:** Largest Laptop Size

**Lack of Support:** More Intuitive UI
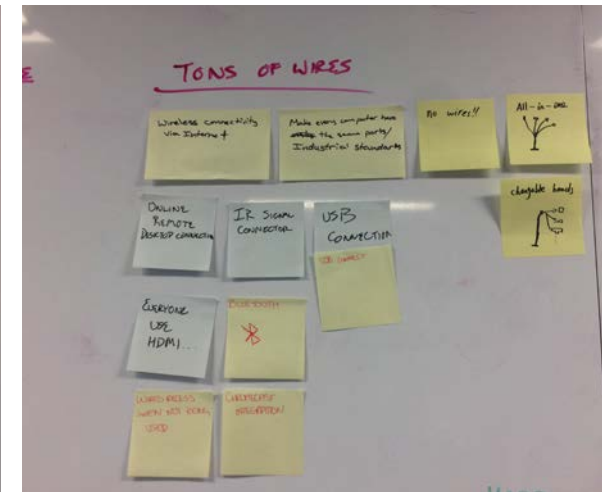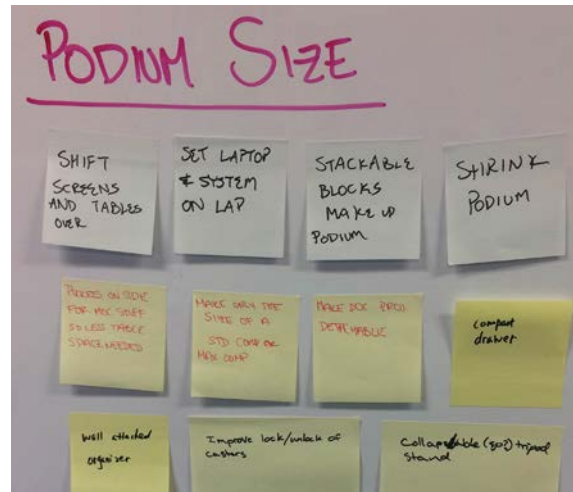
# prototype & user testing

First Iteration Prototypes were made in order to test important facets of both the physical and digital systems.
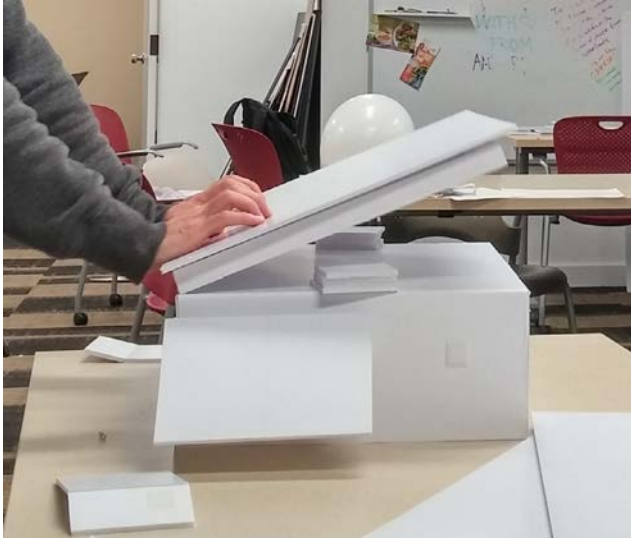


## Podium

A modular prototype was made to test three main characteristics of the podium:

- Screen Location
- Podium Dimension
- Angle

Users were prompted to adjust the podium as much as possible to find their ideal configuration while conducting a think aloud in order to enable us to better understand how they felt about each feature.
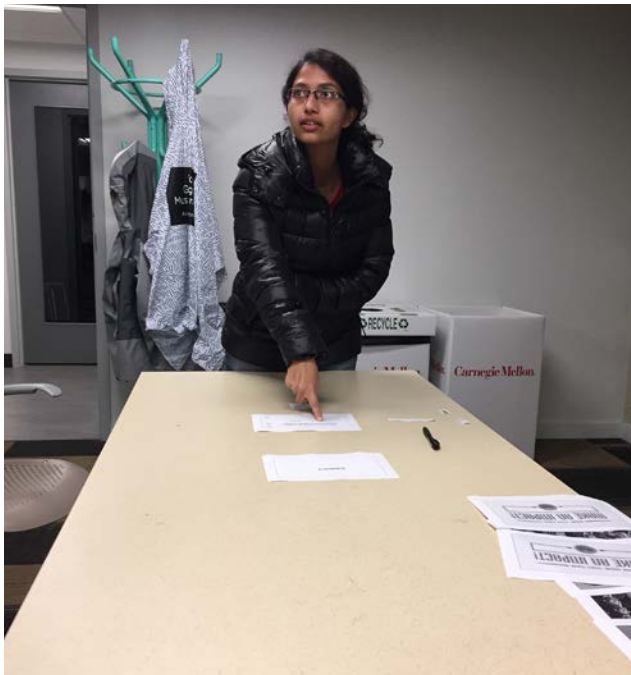


## UI

Paper prototypes were made to test key needs and key functionalities' locations.

- Usability Testing was conducted to understand how easy to navigate the system was.
- A/B testing was conducted to understand which layouts were more intuitive and preferred.

Users were prompted to complete series tasks or asked to use different screens types to complete the same task. Once again, they were asked to conduct a think aloud so we could understand areas of ambiguity and their pain points.

# final podium and user interface design

## Lectern (previously a Podium)

Through user testing, it was determined that a 3" range of movement, an embedded screen, and a laptop size podium were required features. Angles were determined to be not to be necessary - as laptops provide the necessary articulation with their screens - and was therefore removed; turning the podium into a lectern.

The base of the lectern was designed to be visually stunning while providing the 3" of movement necessary and not enabling presenters to hide behind the piece. For this reason, an origami collapsible octagon being chosen.

The top of the lectern, which measures 21.5" by 17.5" with a 3" depth, allows the lid to be open in closed - where one can find all of the internal electronics. Lastly, a system screen is embedded in the system and can be accessed through a sliding mechanism. Once removed, the screen can pivot with two axises of motion. The screen measures 6" by 8".
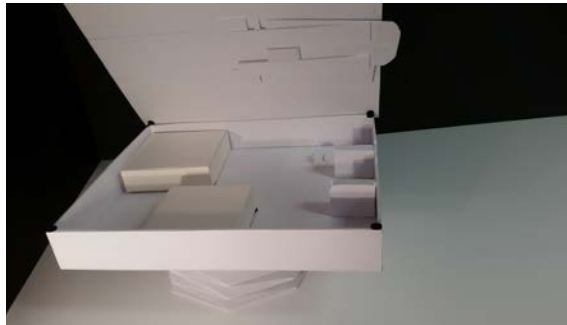
# UI

The final UI was developed to be as simple and straightforward as possible. User feedback guided the screen selection feature, as well as the nomenclature for certain functionalities. User feedback also guided positioning of certain buttons and features.

Overall, the UI enables users to choose their views by dragging, change the volume and mic volumes, change the mode, and turn the system off and on.

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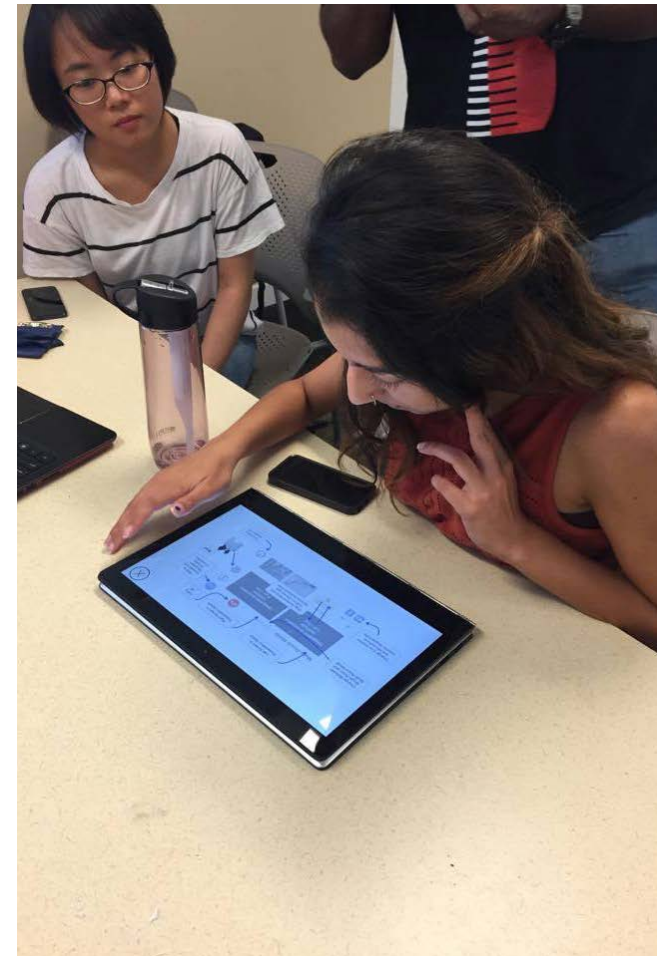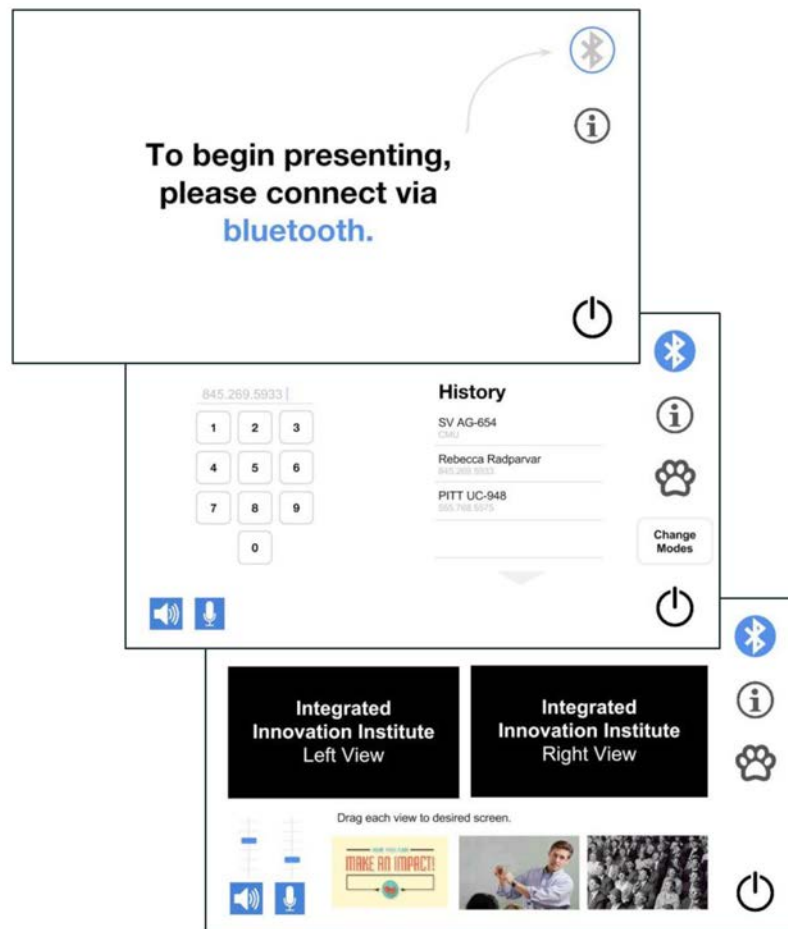
# design thinking edu.

During my time in Providence, I had the opportunity to work with Brown's Design for America (DFA) Chapter on a team exploring how Design Thinking methods could be applied to pre-college education. We had the opportunity to carry our project through DFA's Human Centered Design Process (Identify, Immerse, Reframe, Ideate, Build, & Test).
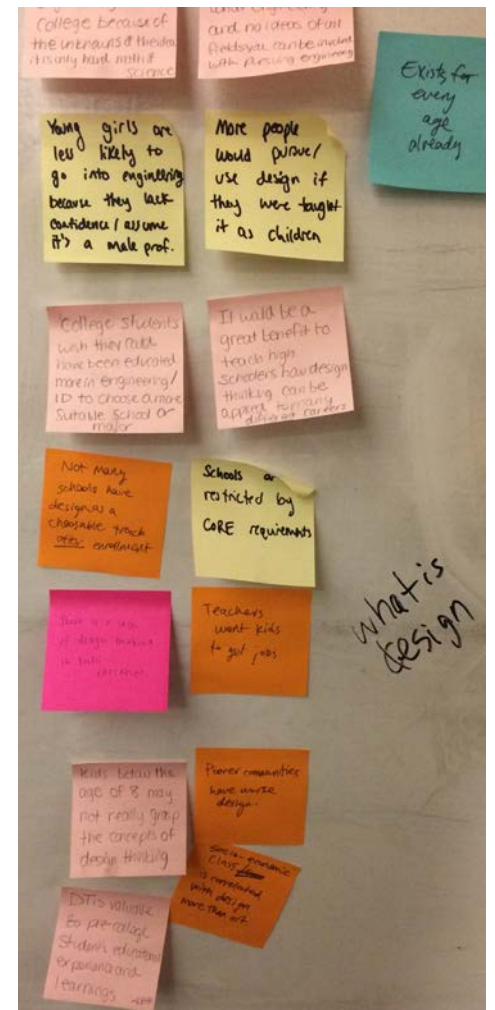
## scope

As we were all designers and engineers, Design Thinking education was something that all effected us personally. We all spoke about our own educational experiences and converged at one question, "Why didn't I know about Design Thinking sooner?" This question became exactly what we wanted to combat and the fueled our ambition for the project.

To begin our understanding of Design Thinking, Design Thinking Education, and its importance, we began to list our assumptions. We questioned where design thinking could be important, why it was important, and even if it was important. These questions aided us in understanding not only why Design Thinking curriculum isn't in place at a K-12 level, but how it could best be integrated.

From there, brainstormed 'How Can We' statements to better scope the project. Three priorities emerged for the semester-long project:

How Can We...

- empower kids who lack creative confidence and access to tools and support?

- equip kids with the proper design thinking tools to help them gauge personal interest in design?

- prevent the split between "creative" and "non-creative" self-labeling?

# research

## Understanding Education

Once we had assessed our assumptions and understood our initial scope, we moved forward to the research phase in order to better understand Design Thinking and K-12 educational models. These models include the current Rhode Island educational model, Common Core, Montessori Education, and a number of private school curricula. After understanding the primary methods of K-12 education, we took a deeper look into supplementary educational models and extra-curricular offerings.

This research led us to speak with Jessica Artiles, a Masters student at Massachusetts Institute of Technology researching Design Thinking Education, and to touring DownCity Design in Providence, Rhode Island, a non-profit that utilizes the design process to teach students how to design and create their own products through the use of new tools and processes. Artiles spoke with us about her research and the importance of prototyping during the design process, while DownCity Design showed us their space and spoke about many of the logistical considerations of facilitating these programs in the Providence area.
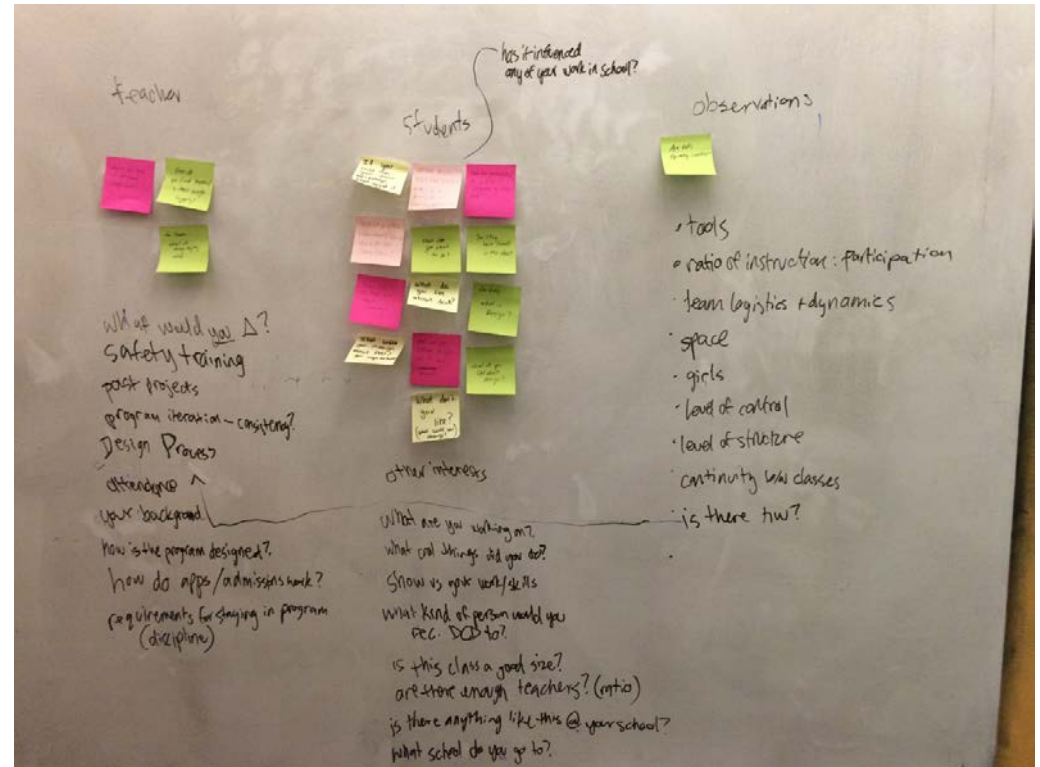
## Stakeholder & Subject Matter Interviews

After understanding Design Thinking and Design Thinking Education from the point-of-view of instructors, we worked to interview students from our own lives on their familiarity with, understanding of, and interest in these concepts to best understand where to go. At the same time, we began reaching out to additional Providence educational and design-centered initiatives to find the proper setting to test the findings from our research.
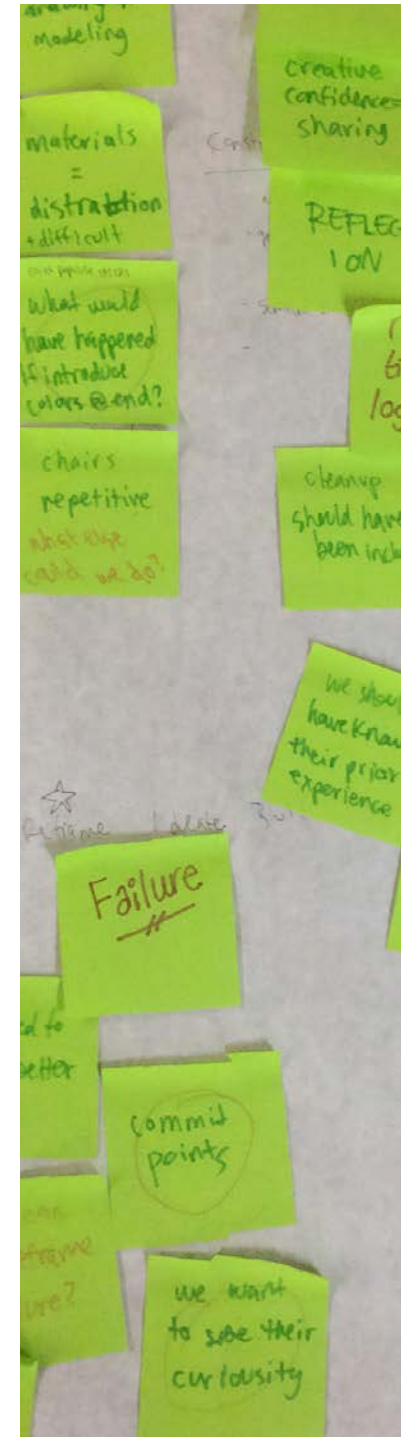
# narrowing scope

After synthesizing our research, we found it most beneficial and impactful to work with students at the 9th grade level. Students at the 9th grade level are just beginning to think about what they want to do for a profession. We wanted to work with these students to open their eyes to alternate ways of learning and understanding, as well as alternate career options that are rarely spoken of at a high school level. Our initial implementation focused on the educating students on how a product is made, a system is conducted, etc. and then enabling them to take part in these processes on a smaller scale. This implementation was chosen in order to display to students the number of professional opportunities available as well as the benefit of utilizing alternate processes for research, synthesizing, and testing. However, despite our immense interest in working with this age group, we were unable to connect with an initiative able to give us some time to test our final implementation with this age group. For this reason, we had to rescope our implementation and testing.

# shifting focus

As we were most readily able to work with students from the 5th grade level, we created a plan around where they were in their educational journey. The typical public school educational models tends to teach students that there is only one correct answer or method to tackle a problem, stunting creativity, innovation, and individuality. As a group we decided it was most important to combat this methodology as we wanted students to learn that there are a wealth of ways to tackle a problem. Additionally, we wanted to teach students about empathy on a base level and how to navigate constraints. We found the best method to teach these principals was the 5 Chairs activity.

Overall, our workshop had mixed reactions. While some students were eager to take part in the activity, other students were disgruntled and vocalized their disinterest in participating throughout the project. For the most part, students disinterest waned when the activity progressed from paper and pen to physical building - strengthening the argument that education needs to be more hands on. During the debrief, students expressed that they enjoyed being able to not only create and build, but create something that didn't have a right or wrong answer. Students felt empowered by their design process and wanted to share it with not only us but their parents - with many students taking their projects home with them at the end of the day.
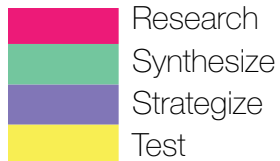
# implementation

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February          March          April

# key insights & takeaways

While our work is presented here in a very clearly and concisely, this is not how the design process always goes, or how our design process progressed throughout the three month duration of our project. As we were in the beginning stages of the project, research was constantly conducted to ensure we were moving in the proper direction. Furthermore, we chose to test early and test often - as we found this feedback integral to our design and understanding. Therefore these and other steps were not conducted in a linear progression, but as needed and found to be illuminating to the project.

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# dt workshops

*Just a taste* of some of the Design Thinking Practices & Activities I've led and participated in the last five years!
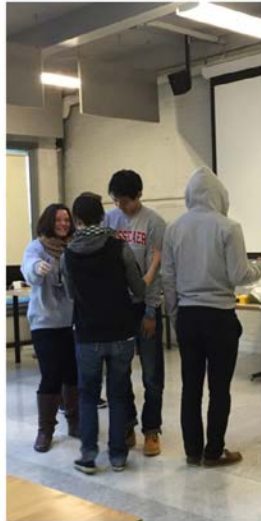


## bodystorming

Bodystorming is an interactive design thinking method that falls into the Experience Prototyping category. The activity calls for participants to physically act out a product, system, or experience - embodying the human and non-human pieces to replicate the respective product, system, or experience.

I teach this method as one of my Design Thinking Modules for Product Design Innovation Studio I. In addition to getting students physically moving - and therefore, typically more engaged - it also forces students to think of products, systems, and experiences in a way they wouldn't before. Students are forced to confront components or interactions they would usually neglect or take for granted - illuminating important aspects of these products, systems, and experiences.

# honey badgers, flash floods and mustard gas

## Better World by Design (BWxD) | 2013

At the 2013 Better World by Design, I had the opportunity to participate in a workshop unlike any other design thinking activity I had done before.

The Honey Badgers, Flash Floods, and Mustard Gas, led by Ryan Clifford - an Associate Director of Center for Design Practice at Maryland Institute College of Art, essentially forced participants to think incorrectly. Clifford asserted, "Humans have the capacity for developing ingenious solutions to these challenges. How do you unlock the ingenuity that exists within people and organizations by thinking wrong?"

He channeled this mission to misleading a room of fifty design thinkers into creating the worst ideas possible. He then forced these teams to turn these seemingly terrible ideas into advertising methods for a brand of his choice.

The activity challenged my usual brainstorming methods and taught me to embrace ideas that make you think - whether they are good, bad, or somewhere in between. We often dismiss ideas because we don't *think* they're a good idea, but when we are able to find value in these ideas as stepping stones - as opposed to final solutions - they will enable us to develop solutions that are truly groundbreaking.

# mockuptionary

Mockuptionary is a rapid design and prototyping activity which asks participants to develop inventions to fix nonsensical problems. These problems are defined by randomly picking two cards - one indicating a user and the other indicating a problem. To make the activity more difficult, sometimes a third pile of cards containing an additional constraint is included.

This forces participants to develop ridiculous solutions to combat ridiculous problems, with the ultimate goal of enabling participants to entertain these ridiculous ideas when brainstorming for long-term projects.

## Some examples of pairs that have been randomly chosen are below:

» A scuba diver can't stop crying.
» My chemistry book is on fire.
» My TA's can't stop, won't stop dancing.
» My cat keeps prank calling the president.
» My piano ran away from home.

# card sorting

When starting a project, card sorting can help define areas for opportunity by allowing group members the opportunity to list and combine facets of a problem, product, or system.

Card sorting begins with group members listing as many facets as possible onto different index cards or post-its. Group members then converse and combine cards which have the same statements on them. They are then asked to categorize these cards however they see fit. This enables groups to create clusters of similarity and find the biggest areas for improvement.

I often use card sorting at the beginning of a project to enable team members to find areas of cognitive convergence and divergence in order to allow them to better understand each other assumptions and understanding of the problem statement.

# mind-mapping

While simple, Mind-Mapping is a very important design thinking tool. Mind-Mapping is a exploitative technique for visually connecting ideas and information. They are commonly used in Design Thinking to better explore a central question, topic, or problem area, and further understanding the connections of other aspects pertaining to this problem.

I commonly begin all of my projects with a mind map, as it allows me to see a problem statement and it's connections more holistically.

# 100 questions

100 Questions is a research and scoping activity used as a diagnostic tool to find gaps in knowledge and to assess areas of exploration necessary for improvement. The 100 questions are meant to be exhaustive and in turn, pressure the user to think outside of the current features and characteristics being developed.

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# Want to see more?
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Thank you for your consideration!