

Assignment 13.2: Specify Your Current User Interface Design

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A. Purpose of Farmur

In researching urban farming I found that most of the sites and apps I could find were poorly constructed, non-engaging, and outdated. While I was very interested in the topic of urban agriculture, and wanted others to know more about it too, I realized that there were no rich media educational tools explaining urban farming concepts and how to start simple.

My solution involves creating a responsive website that explores concepts of urban farming and simplifies the learning curve utilizing: a three minute motion graphic, two interactive infographics, one interactive timeline, one cost & garden size estimator, and ten pages of illustrated content. Users will be able to do more than read content, they will engage it through interaction and motion graphics. In the end the user will have a very practical take away with instructions on how to get started on their very own urban farm.

B. Target Audience

The primary target audience for the motion graphic and website is 18-35 year olds familiar with mobile devices, live in an urban environment, interested in local communities, inquisitive about the food supply, and are potentially curious about starting a garden or a community farming initiative. This website will provide information to newcomers, but also seek to inspire those already gardening to share their interest with new people. The main users will fall within these categories and have access to a desktop computer or tablet device.

C. Personas



Sarah Fennema, 26

Middle School Teacher
Single, 0 kids
Detroit, MI
Impatient, Creative, Crafty

Narrative: Sarah is a teacher and always looking for new ways to excite her students to learn. She's involved in gardening and is very interested in new tools that cover the topic. She's been looking for ways to explain the current US food system in an interactive way to her students and friends. What she'd really like to see is a simplified resource that explores the US food system visually.



Althea Kemmer, 30

Homemaker
Married, 3 kids
St. Louis, MO
Unstructured, Image Scanner, Direct

Narrative: Althea is a homemaker with three sons. She's constantly busy with some aspect of parenting but she values finding outdoor activities—especially activities that relate to health. She's often too tired and busy to read long articles or tutorials and finds that she searches best visually scanning images to find things that appeal to her. She would like to see how urban farming could benefit her family and what size garden she would need to save money at the store.



Nick Smith, 22

College Student
Single, 0 kids
Oakland, CA
Green Thumb, Handy, Independent

Narrative: Nick is a college student and comes from a rural area of the United States. He's worked on farms before and has developed a fondness of growing his own food. He's been interested in learning more about the history of urban farming but most times he gets bored with all the reading and gives up. He'd love to explore the history of urban farming in an interactive and animated way.

D. Target Platform

The target audience my project aims for is younger and is typically up to date on the most current software and browsers. To reach the broadest audience, and encourage sharing, Farmur will be a responsive website. The site will function normally on tablets and desktops, but it will not work on mobile phones in the same way. The information presented is meant to be seen on a larger display, at minimum 960px wide. It will work on a Mac, PC or tablet computer. Testing will be done for Safari, Chrome, Firefox or IE 9+, but the recommended browser is Safari or Chrome.

E. Unique Positioning Statement

Farmur's position in the current competitive market is summed up in three main ideas.

1. Interaction encourages active engagement: Users are encouraged to explore, engage, and make educational guess to learn the topic. When the content offers another level beyond reading, the user is given more time to soak in the information.
2. Focused on before people start their garden: Most major websites aimed at urban farming aim at the people who have already started—Farmur hopes to inspire people to take the first step.
3. More illustrations, less text: While reading educational material is helpful, Farmur will be trying to simplify the concepts through infographics, drawings, videos, and a focus on aesthetics.

F. Competitive Analysis

The thesis I'm creating is unique and unlike many competitors out there today. Since my end goal is education and inspiration, the closest thing to competition are other sites or apps that have the same usage needs as Farmur. While most of the competition focuses on what to do with an existing garden, my focus has been on inspiring people to get started. Below are the major competitors in urban farming related content and a brief breakdown of their pros and cons.

i. urbanfarming.org

A nonprofit website aimed at connecting urban farmers and helping establish gardens in urban communities. This site is more like a glorified bulletin board and has limited interactive content that would encourage newcomers to get started. The concept seems to be aimed at those already with a garden or those interested expanding their garden into a communal space. The site itself has plenty of content and videos, but it's not maintained well with content missing when you try to visit a page. Overall this site is frustrating and slows the visitor's learning potential with dead-end links and unnecessary text.

Pros:

- Garden locations
- Short documentaries
- Discussion boards
- Get involved section

Cons:

- Low quality visual design
- Broken links and content
- Frustrating UX and UI
- Lots of text on many different pages



ii. ruaf.org

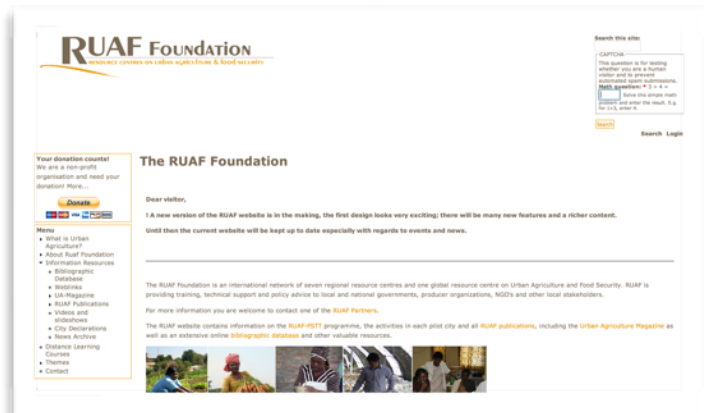
A text heavy resource center for people interested in urban agriculture and food security. The site is in the middle of a redesign, but the current layout is not likely to inspire anyone to start their own garden. It's much more helpful if you know what you're already looking for, and if you do this site has a depth of knowledge on urban farming. There are also videos to look through, but they are mostly recordings of speeches and presentations.

Pros:

- Large information database
- Online learning course
- Publications and videos

Cons:

- Hard to find content
- Poor visual design
- Way too much text vs. using visual explanations



iii. EPA Brownfields UrbanAg

The EPA has a great informational site on the topic of urban farming, but it's almost completely text based. Complete with checklists for planing a garden, this site is full of helpful information for urban farming. It's organized in a thoughtful manner, but it's really unfortunate that the site has no visual aides to help understand the material.

Pros:

- Wealth of information
- Organized informational structure
- Informational presentations

Cons:

- Text heavy and lengthy
- Very little inspiration



iv) urbanfarmonline.com

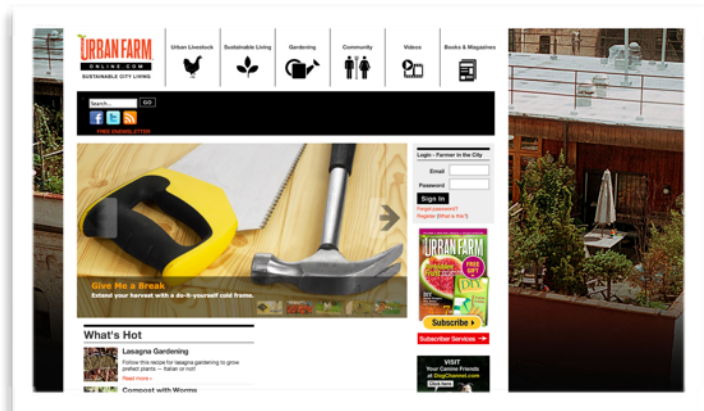
This site is basically an online presence of a print magazine. This site has a better visual design than most other sites I researched, but it still suffered from a lack of rich media interactivity. The audience for this site is most likely readers of the magazine as well as people already gardening, so there is no section devoted to inspiration or education on urban farming and the benefits.

Pros:

- Friendly design
- Tutorials and guides
- Videos and stories
- Quizzes

Cons:

- Blog style format
- Limited interactivity
- Lack of inspirational section



v. communitygarden.org

This site helps people plan and get involved in gardening in a more community-oriented way. Sadly it has a lot of member's only content, but it's useful and insightful. This site is aimed at cultivating and maintaining visitors who are interested in larger scale urban farming. Similar to urbanfarmonline.com, this site has a clean design and is visually appealing.

Pros:

- Garden locations
- Visually appealing design
- Programs to get involved

Cons:

- Members only content
- No rich media content
- The UI is a bit confusing in areas



F. User Requirements Analysis

1. Sarah will need the information on Farmur to be presented in a clear and concise manner. She will need it to be usable as a presentation as well as an easily sharable tool.
2. Sarah will also need to be able to download the “Community Garden Starter Kit” to help her make a game-plan for where to start and what she can expect along the way.
3. Sarah needs the site to work on a tablet since she plans to present in person and she doesn’t always have access to a laptop.
4. Althea needs to have lots of illustrations and animations with enough text to help support the visuals.
5. Althea needs the concepts to be engaging and fun so that she can use this site to inspire her children.
6. Althea wants there to be more of a story, and feel like the story is informative. Briefly going over the history of urban farming would help understand the current day trend.
7. Nick requires there to be some practical examples to learn from. He would love to see interactive infographics and a way of calculating how all this information practically applies to him.
8. Nick expects there to be an action plan he can utilize right away. He wants there this action plan to be tailored to individuals, not community gardens.

G. Use Cases

1. Sarah watches a motion graphic overview of urban farming for a quick introduction.
2. Nick explores the “USA Agricultural Timeline” and locates specific year in timeline.
3. Althea visualizes the change in urban and rural population and finds specific year on the page “Rural Population Goes Urban.”
4. Sarah visualizes the waste in the livestock industry, finding the amount of yearly waste on the page, “Yearly Livestock Waste.”
5. Nick guesses how much the top four firms own of specific industries on the page, “Corporate Consolidation.”
6. Althea calculates food cost, savings, estimated garden size and potential food amounts on the page “Estimate Your Needs.”
7. Sarah reads material about urban farming on multiple informational pages.
8. Nick uses the about section to locate a list of the data sources.
9. Althea shares the site using the sharing page to her social networks.

H. User Scenarios

1. Sarah has become interested in starting a community garden in her area. In order to convince here neighbors and the local government to get on board with the plan, she turns to Farmur. Sarah shares the link with her neighbors and brings a tablet device along with her when she is asked to meet the county commissioner in person. Farmur allows her to communicate the information needed to explain urban farming and is able to convince people to join her cause.
2. Althea is really excited about the idea of urban farming, but she feels like she doesn’t really know much about it at all. Since she is a visual learner and enjoys images and video over reading when she is learning. To top it off, she’s always busy with her kids. Althea needs a tool

that will get her up to speed on urban farming and preferably it could be used to get her kids interested too. Farmur provides an animated and illustrative tool to learn a great deal about urban farming in a relatively short time.

3. Nick really wants to learn more about how he would benefit from urban farming and where he can get started. He's already convinced he wants to get started, so he uses the "Estimate Your Needs" page to calculate what his savings could be urban farming, what size garden plot he might need, and how much he can expect to grow in that space. Once he knows this information he moves on to the next page, "Plan Your Garden." He downloads the "Individual Starter Kit Plan" since he doesn't plan on starting a community garden.

I. Content Inventory

This document is available here:

https://www.dropbox.com/s/5fys7ezf6vavcfh/teaterMark_m4_topic_4_1.pdf

J. Interaction Design



i. Storyboard 1

Nick guesses how much the top four firms own of specific industries on the page, "Corporate Consolidation."

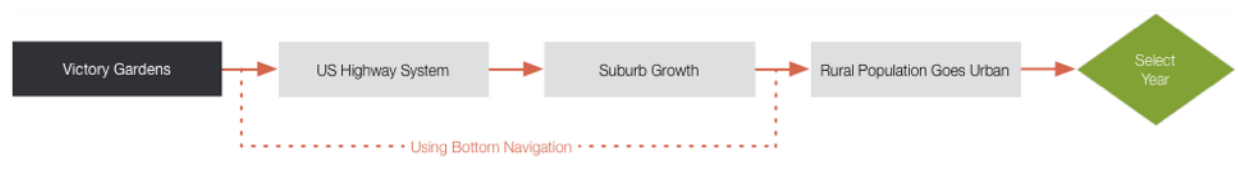
1. From the home page, Nick uses the left side global navigation to move to the "Corporate Consolidation" page.
2. Nick selects the "Crop Seeds & Biotechnology" category and he uses the circular dial to guess a percentage.
3. Nick then clicks, "Reveal," and the actual amount slides out.
4. He repeats this process for the remaining four categories.



ii. Storyboard 2

Althea visualizes the change in urban and rural population and finds specific year on the page “Rural Population Goes Urban.”

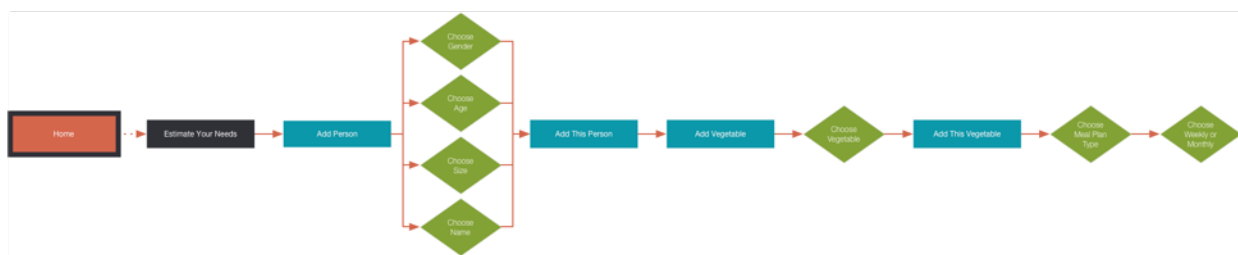
1. Althea has been exploring the site already and has landed on the page, “Victory Gardens.” She moves to the next screen by pressing the orange button with an arrow in it.
2. After pressing this button three times, Althea has arrived at the page “Rural Population Goes Urban.” To get to this page she could have also selected the fourth dot in the secondary navigation along the bottom.
3. Althea slides the knob along the timeline to the years she wants to view information about.



iii. Storyboard 3

Sarah calculates food cost, savings, estimated garden size and potential food amounts on the page “Estimate Your Needs.”

1. From the home page, Nick uses the left side global navigation to move to the “Estimate Your Needs” page.
2. Sarah presses, “Add person.”
3. Sarah keeps, “female,” and “19-50,” but changes her meal size to “light,” and name to “Sarah” then presses, “Add This Person.”
4. Sarah presses, “Add a vegetable.”
5. She chooses, “Kale,” and presses, “Add This Vegetable.”
6. Next she presses the drop-down box that reads, “Thrifty Plan,” and selects “Low Cost Plan.”
7. Finally she presses the drop-down box that reads, “Weekly Plan,” and selects “Monthly Costs.”



K. Wireframes

Example wireframes can be seen in “M. Visual Design” or by going to this link:
https://www.dropbox.com/s/lox21brdqctqwhv/teater_mark_m8_wireframes_8_2.pdf

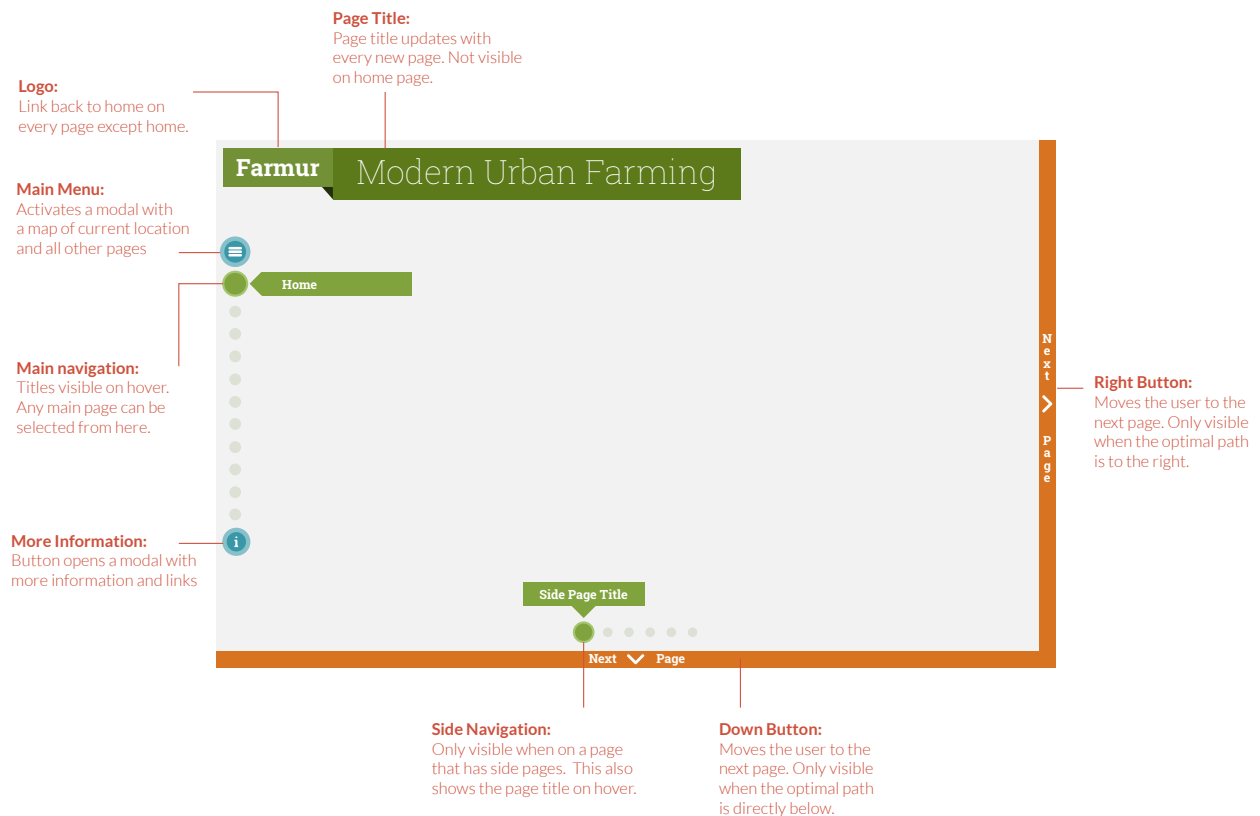
L. Navigation Mechanism

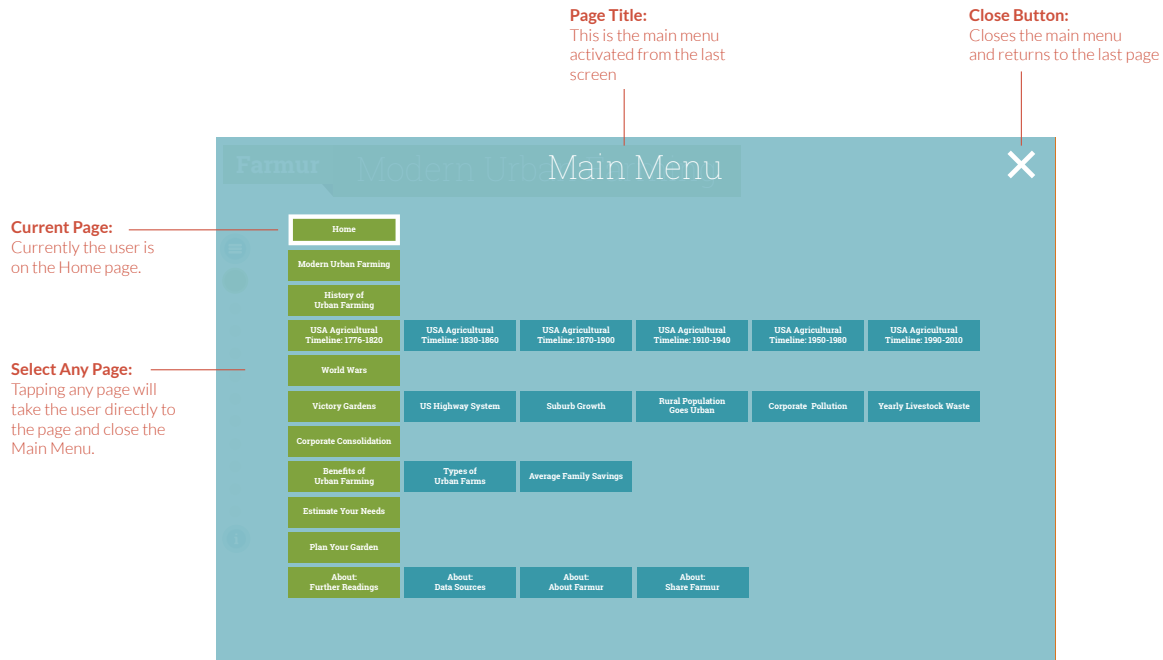
You can see a higher quality version of these images at this link:

https://www.dropbox.com/s/hwacfjyzlnh78r/teaterMark_m7_assignment_7_1B.pdf

FARMUR
Navigation Mechanism
5/3/14

Mark Teater - UX2
Instructor: Annie Choi
WNM 801 OL28: User Experience





M. Visual Design

Since I've already been through the GDS class, Visual Design, I thought showing the wireframe -> prototype -> current design flow would be neat to see. Below are the three wireframes I showed last week, there early prototype look, and where they are currently in the build. Some of the more recent versions are missing component, since I haven't built them yet.

i. Mockup 1: Estimate Your Needs

Logo

Estimate Your Needs

The following interactive calculator is for estimation only.

Add A Person

Add Vegetable

Thrifty Meal Plan

Weekly Calculations

Estimated Food Cost

Estimated Savings

Estimated Garden Size

Estimated Yield

V

Farmur

Estimate & Plan Your Garden pt.1

The following interactive calculator is for estimation only.

Add a person

Add a vegetable

Thrifty Meal Plan

Weekly Calculations

Estimated Food Cost
\$0

Estimated Savings
\$0

Estimated Size Garden
0 ft x 0 ft

Estimated Yield
0 lbs

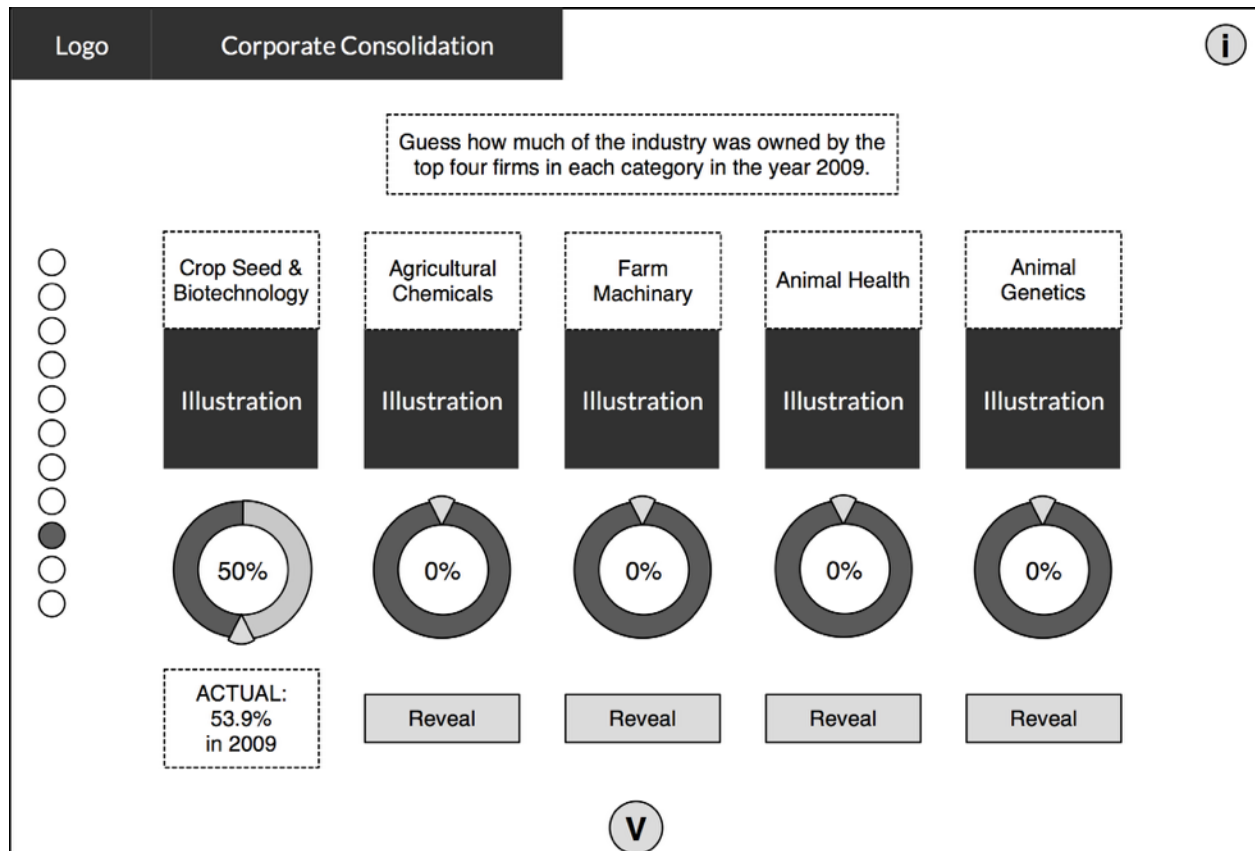
Go Back

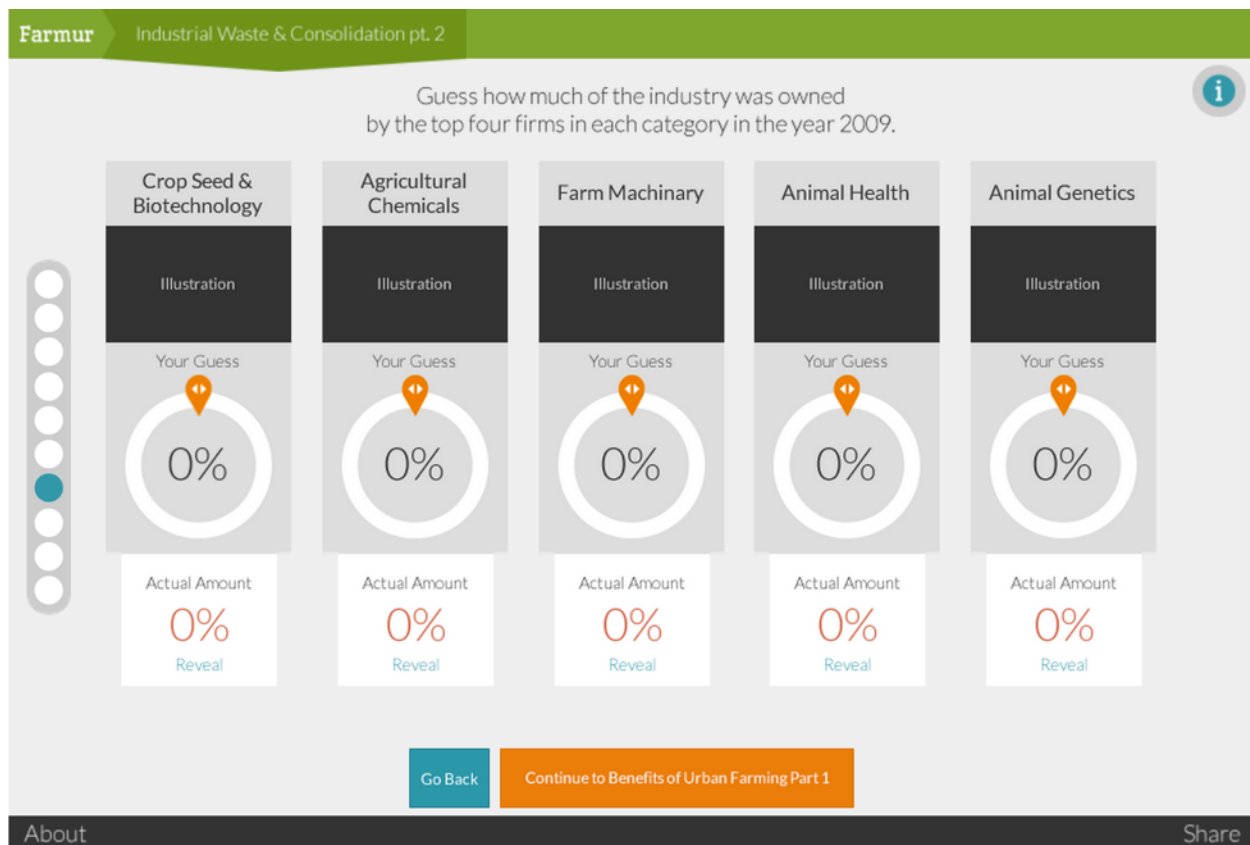
Continue to Estimate & Plan Your Garden Part 2

About

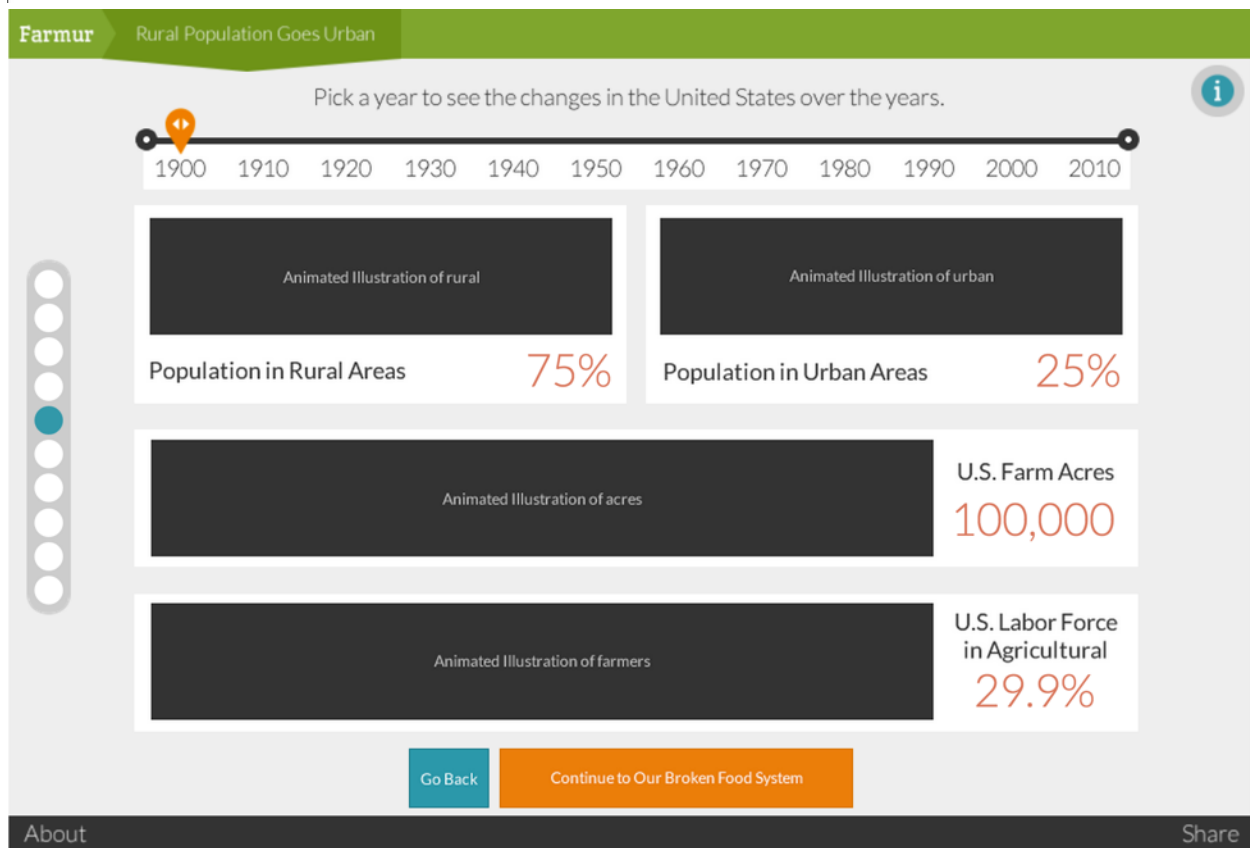
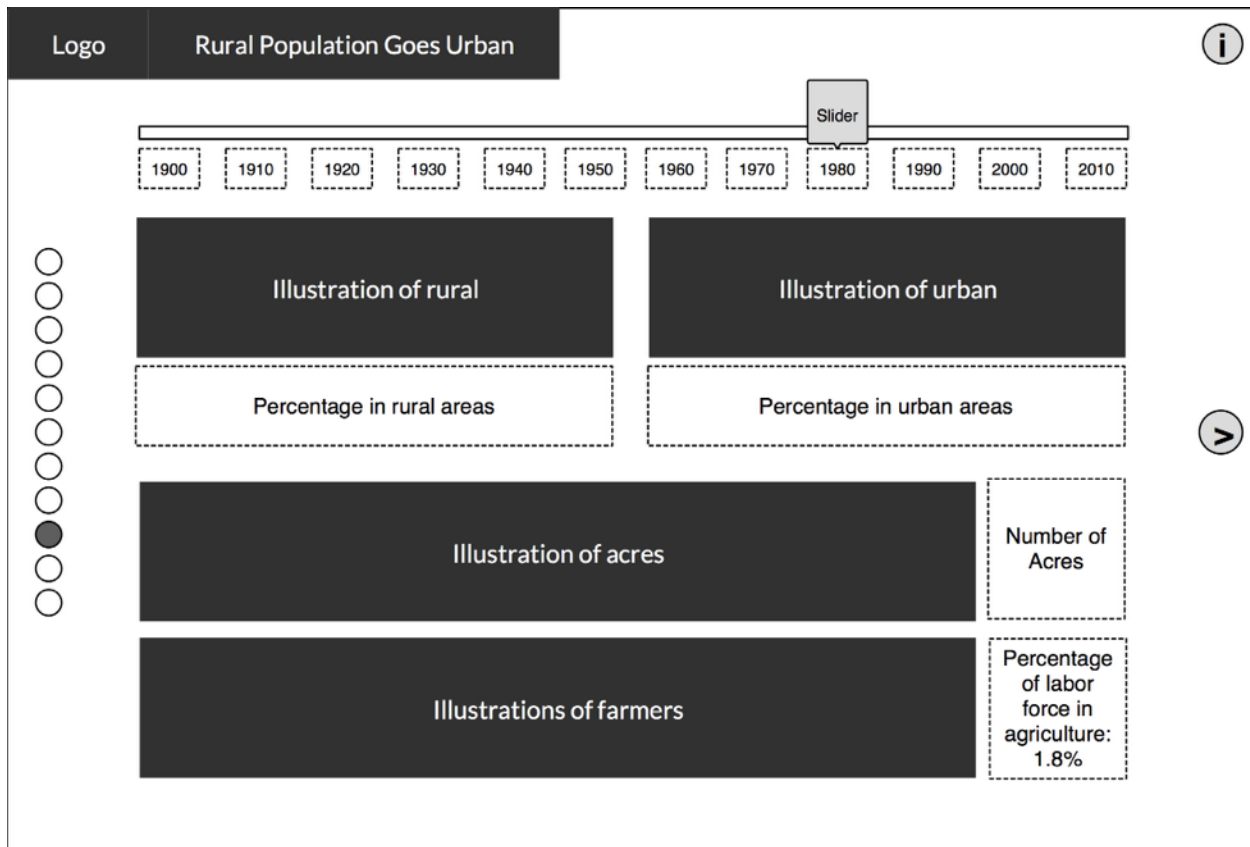
Share

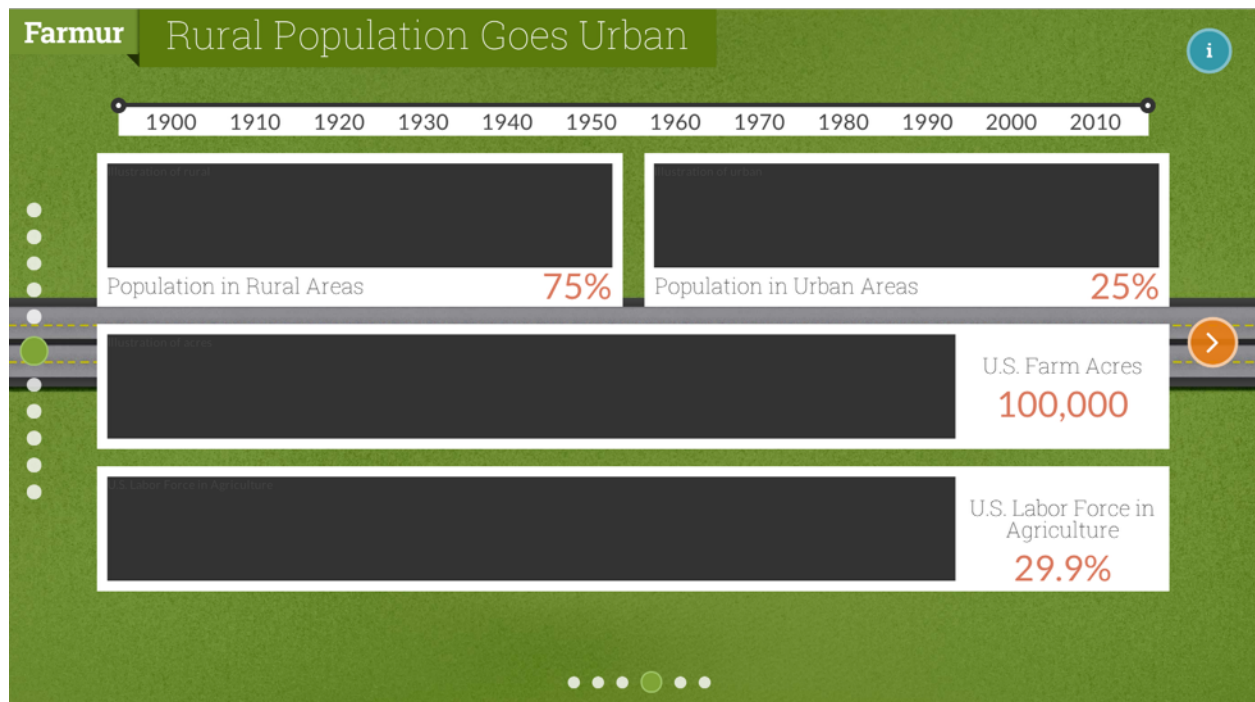
ii. Mockup 2: Corporate Consolidation





iii. Mockup 3: Rural Population Goes Urban





My color scheme includes some bright “earthy” colors:



My font selection can be seen throughout this document, but here are the actual names:

Roboto Slab Light
 ABCDEFGHIJKLM
 NOPQRSTUVWXYZ
 abcdefghijklm
 nopqrstuvwxyz
 1234567890

Roboto Slab Bold
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
1234567890

Lato Regular
 ABCDEFGHIJKLM
 NOPQRSTUVWXYZ
 abcdefghijklm
 nopqrstuvwxyz
 1234567890

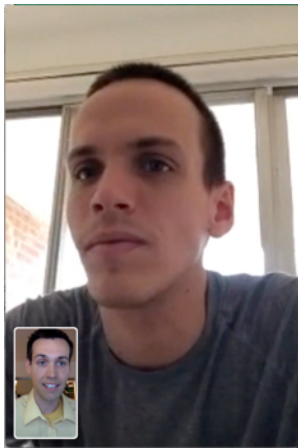
N. Usability Test Results

To test my current prototype I had to do some research into remote testing. A lot of my potential test subjects were located a long distance away so I implemented the javascript library *together.js* into my current site. This allowed me to share the website with them as they browsed and showed me exactly where they clicked in real time. I recorded the screen and audio on my computer for later review, but for the most part my users were able to use my high-fidelity prototype the way I intended.

I had to quickly update my website to include a few items my latest version did not have built. I built some interactive knobs, added instructional text in areas, changed labels, and other basic updates needed to make the site useable.

If you're interested in seeing the latest updated version please visit: <http://farmur.com/test/#&togetherjs=example> To enable the together.js features, you have to visit the "About" page, go to the "Share Farmur" tab, and click the button labeled, "Start TogetherJS." It's not very exciting without another person.

i. Tester 1: James Robinson

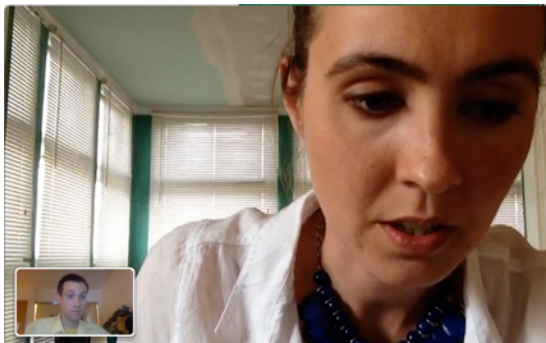


James is 24 years old and a social worker. He loves to build things and is very interested in simplifying the process of urban farming. Whenever he sees a bag of seeds at the store he thinks, “that it looks overwhelming.” He indicated that this site could be useful if it is able to create an extremely simple path to starting a garden. Most of his feedback had to do with user interface elements and “consistency.” He also spotted a lot of the errors currently still in the build, but will be fixed in the final version.

Highlighted Feedback:

- He indicated that he was looking for a “back” arrow and wondered why there was a back arrow for the Agricultural Timeline, but no where else. He would like to see this be constant.
- He mentioned that he thought the illustrations on the “Rural Population Goes Urban” page should actually be graphs instead.
- He would like there to be more consistency with buttons, across the whole site. It’s hard to tell when something is clickable.
- He mentioned that the illustration on the “History of Urban Farming” page is unclear. The Earth, timeline, and cloud design doesn’t make sense.

ii. Tester 2: Angela Lindquist



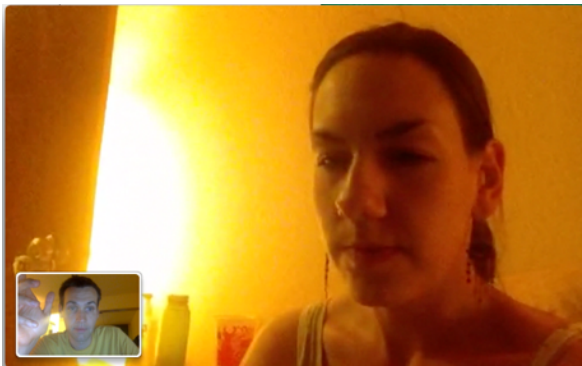
Angela is 32 years old and a stay at home mom for three young boys. She already gardens and sees this sight as something she can use when she starts a community garden in her area. She finds the site “very cool,” but she doesn’t consider herself technology-savvy. She had a harder time figuring out where to go “next” in spots and helped me understand that a better global system of navigation will be needed. Overall, her feedback was very helpful in seeing the places that seemed clear to me, but aren’t. Using *together.js* presented a problem for her because her screen size caused the *together.js*

window to cover up actual UI elements and disregard others.

Highlighted Feedback:

- She was not always clear where to go next. This is partially due to the test asking her to jump around, and then some of the navigation not being seen on her screen. However, she stated multiple times that she didn't understand the concept of "moving forward" in the site. This could be addressed by implementing a different UI system for "next steps."
- She wanted there to be a label on the orange buttons indicating the next steps.
- On the "Rural Population Goes Urban" page she wanted the dates to be clickable and did not notice the "draggable" knob. Making the dates clickable will help users feel more in control.
- On the "Corporate Consolidation" page, she mentioned that she wanted arrows on the orange knobs to indicate they were interactive. She also mentioned "Your Guess" wasn't exactly connected to the knob below it—adding an "...", ":", or an arrow might help.
- When she reached the "Estimate Your Needs" page she tried to click the right hand side numbers and enter something in. She wanted this page to be more clear all around.
- On the "Estimate Your Needs" page she also had trouble with the modals for adding people. She was unclear how to change the data for people, and I think making sure the dashed lines aren't filled in would help.
- On the "Estimate Your Needs" page she suggested adding a tiny label to the "Estimated Food Cost" and "Estimated Savings" boxes that display the current Cost Plan and whether it is in "Weekly" or "Monthly" costs. Maybe even changing the colors on the two dropdowns.
- Although the "Plan Your Garden" page was unbuilt, she wanted to see the best option from her inputs on last page highlighted on this page. She also wants to see relevant information that helps simplify the process here.

iii. Tester 3: Sarah Shubitowski



Sarah is 30 years old and is a manager at a nonprofit. She is very interested in cooking food and natural ingredients. The idea of growing her own food interests her and she thinks Farmur has potential to get her started. She was confused in similar parts as Angela, and mostly felt the directions needed to be more clear.

Highlighted Feedback:

- She thought the dots along the bottom of the screen needed labels. Right now they were unclear as to where they were taking her.
- She thought some sort of global navigation structure would help move around.
- On the "Corporate Consolidation" page, she mentioned would like to see a "confirm guess" button. On her screen the text was also really small and the "Actual" number was pushed off the visible page.

- On the “Estimate Your Needs” page she wanted the modal options for adding a person to be more apparent they were dropdowns. Also, the orange arrow along the bottom of the screen was confusing because it sat over important elements and she clicked on it thinking it would calculate everything for her.

iv. Tester 4: John Robinson

John is a 21 year old database designer for 3M. He is very interested in simple designs and being outdoors. He’s been doing landscaping on and off for three years and enjoys dealing growing plants.

Highlighted Feedback:

- He felt the the scrolling behavior was confusing. He expected the left and right scrolling to work on his trackpad, but it only went up or down.
- When the orange arrow buttons moved he wondered why a user interface button was changing on him.
- His first behavior on the site would be to use the navigation on he left, not scroll. He doesn’t like scrolling.
- On the “Estimate Needs” page, he wished the whole “Add Person” and “Add Vegetable” box was clickable, not just the “+” sign. Also wanted the areas with numbers in them to be clickable, and to bring up more information about the number itself.
- Stated he would never use the blue “i” button along the top right; just a personal preference.

v. Tester 5: Greg Miller

Greg is a 35 year old start-up owner. He is always interested in finding ways to get involved with community in his building and would love to have information to present to his HOA to get a roof garden started. He commented a few times that the main take away for him would be a way to present a way to save money through urban farming, and make sure the data is solid.

Highlighted Feedback:

- Greg was not particularly clear what this site is for when he first visited? Is it a game? Will it be educational? Some type of indicator or better copy to introduce the site would be helpful.
- When he clicks on “Watch A Video,” he expected it to start right away.
- Would scroll, not click the orange arrow buttons. Also depends on what the video told him to do when it finished, or during the video itself.
- Navigation dots along the bottom need labels.
- Orange arrow button is hard to see on some pages.
- Would like to see more textual labels throughout. For example, something like, “Slide Me” on the timeline on the “Rural Population Goes Urban” page.
- He felt the navigation colors could use more unity and make them pop out more. Right now he doesn’t like that there are blue, orange, and green navigation items.

- The page titles, “Corporate Pollution” and “Corporate Consolidation” are confusing as to the difference.
- On the “Corporate Consolidation” page, it’s hard to tell the numbers in the dial are inputs.
- On the “Estimate Your Needs” page, he stated “I don’t want to add Mom!” He was confused about how to add his own information into the forms.
- On the “Estimate Your Needs” page, he would like to see the gender pronoun update when a gender is selected.
- On the “Estimate Your Needs” page, he didn’t understand the numbers were attached to his food cost. He has a higher income than many people, and the food cost didn’t seem relevant to him. He stated this could seem unrealistic or like an error to others. His suggestion was to make the number location-based on the city the user is in.
- He expects to see source at bottom of screen. Wouldn’t click the “i”. For the “i” to be useful it may need to be on the box with numbers in it. Alternatively, there could be a “Data Sources” link at the bottom that takes the user to the about page.
- Top nav logo and page title being different box sizes and font sizes annoys him; expects it to align properly.

O. Summary of Usability Test Results

While doing user testing over the last two weeks I found a few common themes among my users. Most responses to the site were positive and felt the site will be fun and useful when complete, but there are a few areas that need attention to make it something they would share or continue to return to. Right now it’s set up in favor of the first time user and tries to guide users through a story. During testing, I was asking users to hunt down sections without context and almost everyone had trouble. Although the site is not intended to be used heavily in as a tool, my most important take away from this round of testing is that I must implement better global navigation.

Users felt that overall it was hard to find specific pages and that the side “dot” navigation just wouldn’t cut it for the return user. Many times users moved around looking for pages only to end up feeling disoriented and a bit lost. One user, John, also felt at times the navigation that was in place ended up feeling it was really constrained. When he wanted to go “back” there was no clear button to move back, but there was always a button to move forward. Furthermore, the user John felt that the scrolling behavior needed to include a left and right direction, not just up and down.

Most users loved the “Estimate Your Needs” page, but equally felt it needed more explanation to be useful. Although this may have to do with them not receiving the proper context in the testing, this tip of reaction should be planned for. It feels as though most users expected more prompts and perhaps even tooltip-like popups. Most users seemed to ignore the “i” and felt it would not have been sufficient to answer their questions because they would have simply skipped the page if they were confused.

Another section that repeatedly saw people being confused was the “Corporate Consolidation.” Two users felt the information wasn’t clear what it was telling them, and most of them felt the knobs and inputs were not clearly marked. Adding some more indicator “arrows” throughout the interface seemed to be the common suggestion for users.

Throughout the site there are areas I observed adding interactivity might help users get results faster. For example, on the “Rural Population Goes Urban” page, three users clicked directly on the timeline dates before they dragged the slider instead. Almost all my users clicked the dark boxes on the “Estimate Your Needs” page for adding items, then they ended up clicking the inner “+” icon. Adding in the expected behaviors to areas such as these will make the entire design feel more responsive and intelligent. Angela and Greg both became confused when adding

a person to the “Estimate Your Needs” page because the default information was already filled out. Allowing the users to see an empty line first would help them understand that it needs to be filled in by them.

As stated in the beginning, most users felt the site had potential they just wished it was easier to find their way around quickly. With a few minor tweaks to interactive elements and a more major overhaul of the global navigation scheme, users will be able to use this site and will most likely spend more time exploring.

P. Next Steps

Given the amount of changes needed before my site is ready, this week I worked on planning the biggest change I will be implementing. I plan to add a “Main Menu” option to the side navigation to allow people a bird’s eye view of where they are and the ability to jump to any page they want. Right now the design is rough, but the updated version is located above in “L. Navigational Mechanism.” This change, along with a lot of changes I listed above in “O. Summary of Usability Test Results” are my top priorities as I leave this class. I will continue to do more user testing to see if my changes are helping people navigate better.