The FEED

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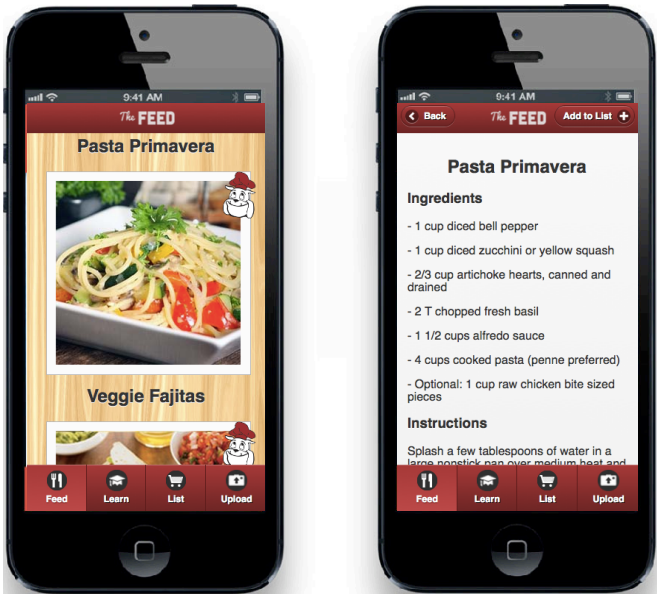
Summary



Our application is centered on a picture "feed," a data format used to aggregate content and display it in an easily accessible manner. In this case, users may scroll through pictures of delicious meals to read recipes posted by both Nutrition Kitchen and fellow UGA students. Students can see what their friends are cooking and identify meals that they might want to try cooking for themselves. This generation of college students loves to share and browse through pictures, as evident from their obsession with applications like Facebook, Pinterest, and Instagram (all of which are centered around feed formats). *The Feed* gives students a new opportunity to look through interesting pictures while connecting with friends.

The picture feed will be not only aesthetically pleasing, but also very useful. As students browse through pictures of meals and see a meal that looks appetizing, they can tap on this meal to unveil its recipe. Ingredient lists, steps, and time it takes to execute the whole meal will be listed.

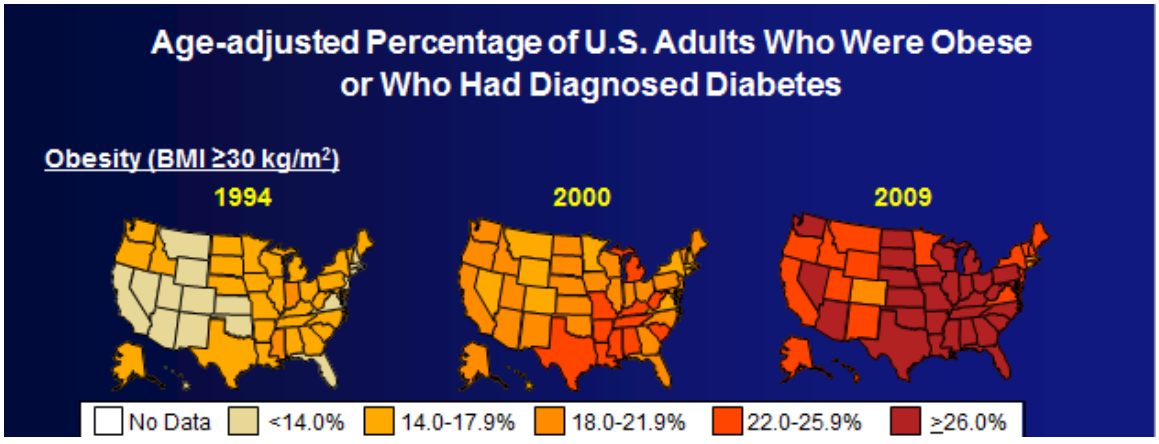
Why?

Why It's Important

College students are a unique demographic when it comes to making meals. Most of them are on their own for the first time and have never had to cook for themselves on a daily basis. They are very busy—studying, being involved on campus, playing sports, and hanging out with friends—and are exposed to a multitude of quick, calorie dense foods both on campus and off. Many are tempted to eat out at fattening restaurants with friends too often, drive through a fast food restaurant when they are late-night studying, or opt to order a pizza when they decide cooking would just take too long.

But there is a problem with this behavior. The sharp rise of obesity (and related illnesses like heart disease, diabetes, and stroke) in the United States has been linked in a multitude of studies to an increase in away-from-home eating—especially at quick serving establishments.

Let's take a closer look at why the obesity epidemic is a problem and how the rising frequency that Americans are "eating out" is contributing to that problem.



The increasing average BMI (body mass index—a measure of obesity/overweight) of our nation is incredibly concerning. Being overweight or obese contributes to chronic conditions like high blood pressure, high cholesterol, type two diabetes, cancer, heart disease, mental health problems, liver disease, stroke, and infertility[4]. These types of diseases increase a person's risk of premature death, disability, and low quality of life. In fact, many researchers have warned that due to the childhood obesity epidemic, for the first time in two centuries, our current generation of children might not live as long as their parents[2]. Not only does obesity decrease quantity and quality of life, but the associated illnesses are a huge burden to individuals and society in terms of financial costs[3]. A person who is obese on average pays $1,429 more in medical expenses than a person who is normal weight[4].

Though there are genetic components of obesity, weight gain is largely due to behavioral patterns. The diets of US citizens are high in calories, high in unhealthy nutrients like saturated fat and sodium, and low in many key micronutrients. Americans are also leading increasingly sedentary lives.

A main aspect of American living that studies have identified as a contributing factor to the obesity epidemic is the increase in eating at fast food and other restaurant establishments instead of cooking at home[6, 10].

Why? Because out-of-home meals are characterized by higher calorie contents and lower micronutrient contents[1]. This means that when you eat out you are consuming more calories, but not more nutrients—which is what your body needs to function properly. Eating at fast food and other restaurants has increased over the years due to availability, more two-parent-working households, and decreasing costs of processed food. More people have been exposed to these meals that are time efficient and offering "more bang for their buck". But what most people don't realize is that this "bang" is filled with too much fat, sugar, and sodium for our bodies to handle properly, and the "buck" is filled with large

hidden costs. A few dollars saved now from eating at a fast food restaurant instead of cooking could mean thousands of dollars spent down the road paying for the medical costs of a chronic disease.

This is why we have decided to target the behavior of "eating out too often" with our app, *The Feed*.

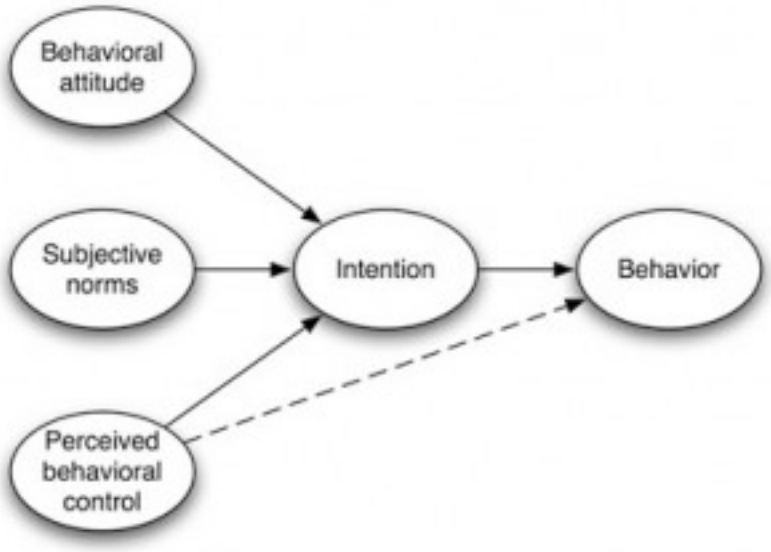
Studies also show that the frequency of eating out-of-home peaks in adolescent and young adulthood years[1]. Many believe this is due to a generational shift where eating out is becoming the new social norm. This is a huge problem because society (especially Medicare) cannot afford for this new generation to be ridden with chronic disease as they move into adulthood. Public health efforts are now concentrating on ways to keep the new generations from engaging in unhealthy behaviors, like eating out too frequently. Saving the "dying art" of cooking meals at home in the new generations will also be important for future generations of kids who will be dependent on their parents for healthy meal options.

This is why *The Feed* is being built for college age students who are starting new behavioral habits now that they will continue for the rest of their lives.

The Feed will help college students make the healthy shift from eating and ordering out to cooking at home on a regular basis. By eliminating perceived and real barriers that college students encounter when trying to cook at home, *The Feed* will help this generation of fast food and restaurant-goers realize that cooking at home can and should be done—and it can be fun!

Why It Works

While building *The Feed*, we referenced a well-known behavior change model often used in the field of Health Promotion and Behavior. The Theory of Planned Behavior shows how the use of our app will actually translate into the desired behavior change: increasing the frequency of eating at home among college students.



The Theory of Planned Behavior assumes that individual behavior occurs or does not occur depending on the person's 1) attitude towards the behavior, 2) perceived subjective norm of the behavior, and 3) perceived behavioral control.

1. The model describes "attitude" as a sum of all the positive and negative feelings towards the behavior. Our application increases positive thoughts and decreases negative thoughts students have towards making their own meals. It does this by making cooking easier, less time consuming, and more fun. Decreasing barriers to cooking will decrease the negative thoughts and attitudes that students harbor towards cooking, therefore increasing the probability that they will cook.

2. The subjective norm is whether or not a person believes that people important to him/her value the behavior in question. Is it cool? Do other people do it to? Our application wants to show students that cooking at home is cool, it can be looked at as a social event, and other students are doing it around campus and posting the proof in our app!

3. *The Feed* helps people believe that they have the ability (behavioral control) to be able to cook at home. To achieve this increased self-efficacy, our app is giving students simple recipes, cooking classes, and support from other students that are trying to perform the same behavioral modification.

We hope that by attacking these three constructs of the Theory of Planned Behavior, we will increase students' intentions to cook at home—which, according to this model, will translate into more people actually participating in the behavior.

Sources

For additional information about the research behind *The Feed*, visit the following websites!

(1) HSE Centre for Advanced Studies: http://goo.gl/Ug3Xu
(2) New York Times: http://goo.gl/gLZdL
(3) Forbes: http://goo.gl/EkYYb
(4) Center for Disease Control: http://goo.gl/w7K8b
(5) Institute for Health Research and Policy: http://goo.gl/swdnM
(6) Center for Science in the Public Interest: http://goo.gl/hn4b2
(7) NPR Health: http://goo.gl/KZUhy
(8) National Institute of Health: http://goo.gl/ghXHS
(9) US News and Wold Report: http://goo.gl/qlUhX
(10) Huffington Post: http://goo.gl/qUe9a
(11) HSE Centre for Advanced Studies: http://goo.gl/q8UPY

Target Audience

Our surveys of UGA students have shown that there are three main barriers students face when trying to cook at home. These barriers are exemplified by three types of students (our target audience) that we are trying to cater towards.

Sam doesn't have enough time to shop or cook

There are barely enough hours in a day for Sam to study for all of her difficult courses, let alone figure out what to cook. She often looks in her fridge and pantry right before dinner and is discouraged when she doesn't immediately see what she can make with what she has. Going to the grocery store takes forever because she doesn't know what to get, and finding quick recipes involving the ingredients she already has is a nightmare.

Jake and Max don't know how to cook

Jake and Max are roommates that have always had their food made for them. Back at home, their parents made them dinner every night, and they got their food from the gross (but cheap) school cafeterias. When they entered college, the meal plan was the easiest solution, providing lots of delicious, but unhealthy, options for them. Now that they have an apartment off-campus, neither of them know how to make food for themselves. Even simple tasks like cutting vegetables or making scrambled eggs seems a daunting (and dangerous) task.

Alice doesn't view eating in as a social experience

If you looked up the phrase "social butterfly" in the dictionary, there would just be a picture of Alice... and a dozen or so of her friends. She loves hanging out with her classmates, her sorority sisters, and she even makes time to catch up with her old high school buddies. Any time she thinks about making dinner for herself at home, she feels like it's a wasted opportunity to spend quality time with her friends. So instead, she puts down the pan, picks up her phone, and asks "Who's up for going out tonight?"

Features

The Feed

When opening the app, the first thing a user sees is our feed of easy to make recipes, most of which are provided by the UGA Nutrition Kitchen database. Users can scroll through the photos to get a sense of which meals appeal to them. When they find a recipe that they want to know more about, they can tap on a picture, which will give them information about ingredients, cook time, number of servings, and instructions.

The Sharing Options

When students select a meal, they will have two easy ways to share it with their friends right from our app! Either they can “like” the meal, which will post the recipe to their facebook timeline, or they can invite their friends to cook with them, by sending a private facebook message to whoever they want. These options will help students realize that making meals is a fun, social experience that they can share with their friends!

The Shopping List Generator

Students can now select meals they want to cook and automatically add the ingredients to their personal shopping list. Even if multiple meals are selected, the ingredients of all these meals are amalgamated and added to the master shopping list. This will allow students to plan for the whole week when shopping, choose four or five meals at a time, and then have a comprehensive list to guide them through the grocery store.

The Cooking Classes

The Feed also encourages students to take cooking classes at the Nutrition Kitchen located at the UGA Health Center. Students will have access to information about Nutrition Kitchen and can view cooking class schedules. We envision cook-and-eat outings with friends at the Nutrition Kitchen to be the next, new social event everyone is talking about and wanting to try!

Partnership

The University Health Center's Nutrition Kitchen has graciously allowed us to use their recipe database to populate our app.

The Nutrition Kitchen is a specially designed teaching kitchen located in the UGA Health Center that offers fun, interesting, and healthy cooking classes to UGA students. Benjamin Gray, who earned his M.S. in food and nutrition, instructs these classes. Benjamin offers unique insight into how to eat healthily, and he is also a culinary school graduate with plenty of cooking experience and knowledge. If you attend a class, you can learn to cook wonderful dishes with your friends by your side while enjoying the fruit of your labor at the class' end! You can even set up a private class for you and your friends with Benjamin anytime between 8am and 7pm.

Poster


Kayla
SKLAR
manager
Louis
HOKAYEM
visual designer
David
SAWYER
programmer
Annie
MARTIN
quality assurance
The
FEED
FROM A PICTURE TO YOUR PLATE...
The
FEED
NEWMEDIA
INSTITUTE
LEARN · SHOP · COOK
Thefeedapp.mynmi.net

Marketing Mix

The strategy that develops a satisfying exchange between our app and our target audience is known as the marketing mix. It's a way to influence our target market's overall perception of our product. In order to have a fully optimized mix, we need to look at the four Ps of marketing:

Product

The product just include the features of our app, which have already been described in detail in this book. It also includes its "packaging," or how it's presented to the customer. *The Feed* is designed to be incredibly user-friendly; all function buttons have graphics instead of words, and changing from picture to recipe is as simple as tapping the picture to make it flip over – this intuitively resembles written notes on the back of a Polaroid. We also use bright, vibrant colors and textures to appeal to our young, hip demographic.

Place

Because *The Feed* website optimized for your phone rather than a mobile native app, we're not limited by place at all! Any mobile phone, regardless of model of operating system, will be able to access our content, thereby expanding the reach to our target market. And although the web app is not optimized for desktop viewing, there is no reason why a college student can't bring up our recipes on their laptops as well.

Price

Our target demographic has incredibly limited financial resources, and since the development of this app is supported by the generous New Media Institute and Verizon Wireless, we would make our app free to download. Of course, if we really wanted to make revenue from our product, we could have banner advertisements from local grocery stores be our main source of income. Nevertheless, we would never raise the price of our app.

Promotion

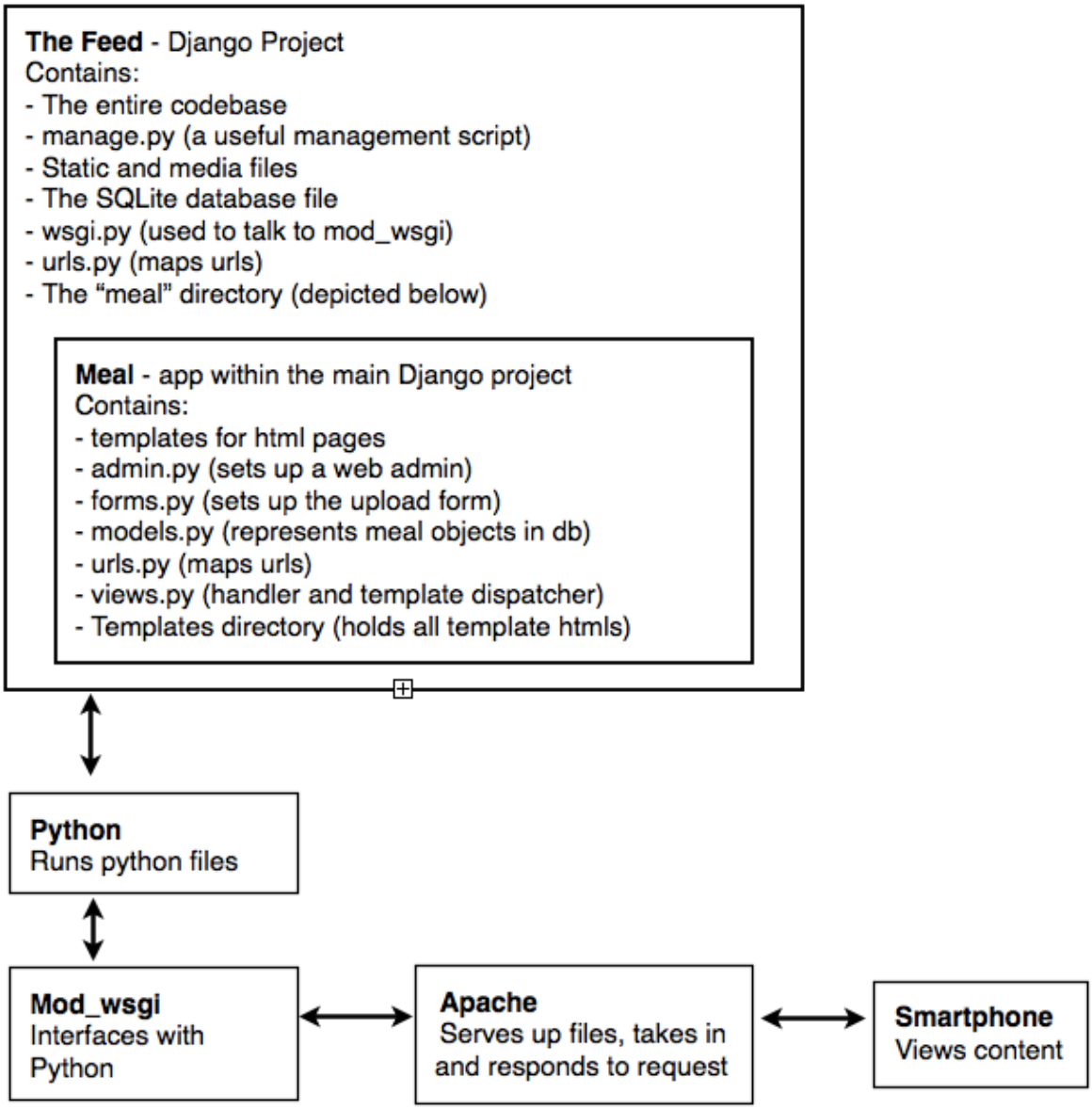
This is what most people think of when they hear the word marketing; advertising, public relations, and personal selling. Since our app is not an expensive or complicated product to use, personal selling doesn't apply to our product. However, here are a few ways we could implement promotional techniques break into our target market:

- self-promoting: one of the great features of our app is the ability to share recipes on facebook. While this is designed as a great asset to the consumer, it also is a great asset to our company: our name gets posted to facebook without any cost to us.
- Facebook ads: We could also take out ads on facebook to reach our target demographic, which is highly involved in social media. In addition, we could make a facebook page for our product, and have our users "like" the page in order to attract attention.
- bus placards: The UGA bus system is a highly trafficked area, and outdoor media is considered a very valuable promotional tool when trying to reach a demographic in a highly controlled geographic location: in this case, a college campus. Placing ads on the UGA buses would reach a large population, and be seen at a high frequency.
- health center nutrition services: Counseling services at the health center would promote our app as an effective and fun way to gain better health habits.
- word of mouth: our app will be so great, everyone will talk about it!

Technical Processes

Structure Overview

The following models the structure and flow of communication between *The Feed* and the user's smartphone browser.



Features to add in the future

- User accounts
- Dynamic search on the meal feed
- Sorting both the grocery and meal list in various way
- Make uploading recipes easier by adding units of measurement option list
- Confirmation dialogs on the upload and add to list pages

Other specifications and instructions

A Unix-like environment (i.e. Linux, OS X) is going to be the best for developing *The Feed*. You must have sudo privileges to install most of the packages below and to run many of the commands you'll need in the development and production environments.

To learn more about:
Python: http://goo.gl/DjxS2
Django: http://goo.gl/ppF6c
jQuery Mobile: http://goo.gl/d2utW
SQLite: http://goo.gl/i3aSD
Apache: http://goo.gl/XPFtW
Mod_wsgi: http://goo.gl/eEmjf

Usability

We tested *The Feed*'s user friendliness by observing and surveying ten UGA students as they downloaded and fidgeted with the app. The goal of our testing was to see what parts of *The Feed* are intuitive, confusing, overlooked, or need to be enhanced. We asked the focus group for their honesty and input on how the app could improve. Overall, the focus group was pleased and regarded the app as a useful tool to have. The stories that the students told about how they would use the app fit in nicely with how we wanted them to use it. Below is more specific feedback about each core function.

The Picture Feed

All testers identified "giving students access to meal ideas that they can try out" as the main function of the app. Students responded very positively to the aesthetically pleasing nature of the meals. Phrases such as "I want to cook that!" and "Yum, this looks so good!" were common and validated our idea that the current generation responds better to pictures than text— As we had intended, the operation of the scrolling picture feed came very naturally to the students as they applied prior knowledge from other apps (like Instagram) to *The Feed*. Students also intuitively tapped on the pictures when using the app and were happy to see that *The Feed* had actual value—gave them access to recipes and cooking directions—instead of being just a time wasting app that they could fiddle with when bored. Suggestions for the picture feed and recipes that we received were allowing for a "comment" or "liking" feature below the pictures, or to develop some sort of rating system for the meals that is visible on the picture feed. We are now in the process of re-designing the picture feed so that it is more interactive so students will remain engaged.

The Nutrition Kitchen Informational Page

None of the students included in the focus group had ever heard of Nutrition Kitchen. Because of this, the static informational page was useful to them. However, once the page

was read it decreased in value and became an unimportant function. Some thought there was too much text on the page and that linking to the Nutrition Kitchen website was inefficient and decreased the chance that they would sign up for a class in the future. Some also thought that the page made the app "smell more like a school project." To fix these problems, we integrated the Nutrition Kitchen function more into the application so that it is not a stand-alone feature without much purpose. Now, students can call the Nutrition Kitchen to sign up for classes straight from our page. This gives the page actual value and increase the likelihood that students will actually sign up.

The Upload Your Own Meal Function

Students were excited about the prospect of being able to upload their own meals to the application. The way the upload function worked was regarded as straightforward and intuitive. Currently, the uploaded meal shows up on the main feed randomly and with no definitive tie to the uploader. We do not at this time have user profiles that would allow these uploaded meals to be identified by their maker—unless the student named the meal after himself/herself. When we asked students if they would rather have user profiles so that these uploaded meals were clearly identified as theirs, they overwhelmingly thought that user-profiles were essential. After discussing the potential user profile further with the focus group, we concluded that user profiles must be implemented into the app. The idea that a student can create a personal recipe book is a substantial incentive for him/her to actually upload meals. It is important to us that students upload their own meals to increase the social interactivity of *The Feed*. Taking the testing group's input to heart, we have now begun creating user profiles for individual users that download *The Feed*.

The Grocery List Generator

There were mixed reviews about this function. Some found the list's operation intuitive; they selected recipes they found appealing, clicked the "Add to List" button, then saw the ingredients were now on their grocery list. However, a few students thought this button would take them to a list of meals that they had "favorited" on the picture feed, and were

confused as to its actual function. To make this more obviously a grocery list generator, we added an icon of a shopping cart above the word “list.” However, once the function was understood students were pleased that this was a feature of the app, and many people regarded it as a crucial component. When asked to describe a situation when the app would come in handy, many students included “being at the grocery store and not knowing what to buy” as a potential instance. All students liked the ability to check off ingredients as they are purchased. The only other criticism was that identical ingredients were not aggregated together when added to the list from different meals. The next improvement will be to have it add identical ingredients together so the user doesn’t have to manually calculate the amount they need to buy when shopping for multiple meals.

Share Recipe with Friends via Facebook Function

This function was frequently overlooked by students in the testing group. Many students did not attempt to use this function, and many did not even see it at all. Because making cooking a social activity is an important part of our app, this issue has captured our upmost attention. Some of this oversight could be attributed to a technical problem—the “recommend” and “send” buttons did not appear on some of the recipes. However, most of the problem of the lacking social aspect of the app came from simply not seeing or realizing that this was a useful feature of the app. To fix this problem, we intend on making this function more visible on both the recipe screen and the actual picture feed. Pop-up or push notifications suggesting that the user shares recipes and invites friends to cook with him/her will be implemented.

We are excited about the changes we are making as a result of our usability testing, and look forward to making our app work better so that it is more useful, efficient, and valuable to our consumers.

Impact

Once we have finished improving our app using the input received in Usability Testing, we will be ready for impact testing.

As discussed previously, our team is trying to achieve the following:

- More students will choose cooking at home over eating out on a weekly basis (desired short-term behavior)
- Students will continue to use the skills, knowledge, and positive attitudes gained from *The Feed* in the future, contributing to a healthier personal diet that is rich in home-cooked meals (desired long-term behavior)
- Students will gain short term psychological and physical health benefits from consuming a healthy diet (weight control, more balance consumption of micronutrients, better mood), and also long-term health benefits including decreased risk for obesity and other diet related problems like type-2 diabetes, high cholesterol, hypertension, and cardiovascular disease (desired health impact)

Our Impact Testing will be focused on the desired short-term behavior. We will focus on this because the other desired impacts of the app are dependent on a large passage of time and measurements that require resources beyond our reach.

During impact testing we will expose a group of students to *The Feed* for one week, and then ask them questions about their experience using the app. The content of the questions will be based on the Theory of Planned Behavior model (previously discussed). They will assess how the app performed in the areas of behavioral attitude, subjective norms, and perceived behavioral control. These questions will help identify the areas that the app was a success or failure, which will allow us to continue to tweak and improve the app in the future.

The types of questions that will be asked include:

Behavioral Attitude

- After using *The Feed*, is cooking at home less of a burden than you previously thought?
- Did *The Feed*'s shopping list generator help you plan for more meals during the week?
- Do you think that a Nutrition Kitchen class would be fun, or do you plan on attending one?
- Do you view cooking as a more enjoyable experience now than before using *The Feed*?
- Do you like browsing *The Feed* for recipe options?

Subjective Norms

- Would you recommend *The Feed* app to a friend?
- Do you enjoy uploading and sharing your own personal meals with others on *The Feed*?
- Are you glad that your peer's recipes are included on *The Feed* instead of just Nutrition Kitchen Recipes?
- Are you more likely now to invite friends over to cook with you than you did before using *The Feed*?

Perceived Behavioral Control / Self-efficacy

- Do you feel comfortable cooking now than before using *The Feed*?
- If you had no cooking skills before using *The Feed*, do you think a Nutrition Kitchen class could help?
- Does the shopping list generator make you feel more comfortable and less overwhelmed at the grocery store?

We hope that testing will show that *The Feed* was successful in eliminating barriers that college students have to cooking.

Team

Kayla Sklar - Project Manager

A Marketing and Mass Media Arts major, Kayla hopes to work in the entertainment industry as a producer when she graduates. As manager, she assigned tasks and deadlines, updated *The Feed*'s template .css files, and compiled the project book.

David Sawyer - Programmer

A Computer Science major, David aspires to work as a software engineer when he graduates. As programmer, he developed and coded the application from the ground up.

Louis Hokayem - Visual Designer

An Advertising major, Louis aspires to create new businesses and design innovative products. As visual designer, he designed the look of the app.

Annie Martin - Quality Assurance

A Health Promotion and Behavior major, Annie is interested in how new media and health promotion tactics can work together to improve population health. As part of their Healthcare and Social Entrepreneurship Initiatives, Annie has been accepted into Harvard Business School's 2+2 MBA program. She was in charge of impact and usability testing.