

Health Points

A Health and Fitness App
CSE 440 Autumn 2013
Contextual Inquiry

Team Lead: Nicholas Johnson
Documentation Lead: Crystal Wong
Research Lead: Erick Lo
Design Lead: Ryan Hussin

Problem and Solution Overview

Health is a major concern today and for good reason. Far too many people are unmotivated or uneducated when it comes to what they eat and how much physical time they commit to physical activity. It has been said that America is the most obese nation in the world. According to the Food Research And Action Center, more than two thirds of the American population is obese (Flegal et al., 2012). An article in the CBS News stated “doctors are blaming America’s obesity on...too much [of the wrong] foods and too little exercise, [while] spending too much time in front of the TV.” (Keith, 2006). This article is almost eight years old and and it still holds true. There was, and still is, a lack of motivation to eat healthy and a lack of motivation to part from the comforts of our couch.

Health Points serves to solve this problem by promoting friendly competition through a system that monitors activity levels and eating habits. When the user practices good healthy habits they gain points that they can use to compete against friends and unlock rewards. Conversely the user can also lose points for unhealthy habits. This point system will allow users to compete in friendly competition while they track their activity and eating habits. Health Points will promote better dietary and fitness practice.

Contextual Inquiry

To learn more about the necessary specification for our app, we conducted contextual inquiries on a variety of potential users and observed their interactions with food, social media, and physical activity in situ. The sample derived from University of Washington students because our target audience consist of UW students who are at least moderately conscious of their health and nutrition practices. We accompanied each participant while they decided what to eat at a restaurant, browsed facebook and worked out.

Justin

Our first interviewee, Justin, is a University of Washington student majoring in Atmospheric Sciences and an active member of ROTC. Justin is physically active both in and out of ROTC and maintains a healthy body weight. Justin fits our target audience of health conscious, competitive university students to the bill. On a day to day basis Justin bases his eating choices on a number of factors. First is availability and second is cost meaning whether it is something he will have to go buy. Beyond basic availability he chooses food for nutritious value and rarely eats out. If given a choice he will often eat the healthier choice and takes note of values on nutrition facts labels. He will rarely deviate from this path if he hasn’t eaten for a while, in which case he eats whatever is easiest regardless of nutritious value. His conscious choices to eat healthier transfer cleanly over to physical activity. He works out five days a week including both ROTC and flag football. During the summer he works out more even without ROTC to stay

in shape.

On his competitive nature Justin constantly feels the desire to be on top be it in school, ROTC, or with his flag football team. Physical rewards definitely have an impact, but a lot of his desire comes from self-motivation. He constantly sets goals for himself and attempts to push his friends and family into getting into better shape.

Benjamin (Beau)

Our second participant, Beau, is a Business Finance student at Foster School of Business at the UW. Beau is very focused on work, school, and his physique. He truly believes that “you are what you eat” and he expressed that he did not want to be classified as one of the many obese Americans he sees on his travels to and from work. Beau adheres to our user audience because he is very conscious of his food intake and loves to workout with his friend. When asked why he works out with a friend, he responded “it is not the same by myself. I will cheat myself or slack off if no one is watching me. Having someone there is good for safety reasons as well as motivation to push myself.”

I accompanied Beau to the gym to see what he calls a “typical workout”. We went straight to the weight room, where we stayed for the entirety of our gym trip. I observed how Beau would warm up quickly with lighter weights before every new type of lift. He also changed the amount of weight depending on his target rep count. I asked him why he did this and he responded that “it confuses my muscles. Low weights are usually for endurance and high weights are usually for strength and bulk.” I took note of this because there might be something interesting we can do with exhaustion vs. weights and reps.

Another thing that Beau did frequently was check his iPhone. Almost every time between sets, Beau would pull out his phone to check for texts, emails, or change the song that is playing on his headphones. He does this to stay updated, but hardly responded to any of the messages he received.

Sarah

Our last participant, Sarah, is a student in the department of Human Centered Design and Engineering with a focus in Electrical Engineering. Sarah is very focused on her studies and is trying to finish her degree this year. I chose to interview Sarah because I see her frequently at the gym with her friend and she is an active poster on Facebook. The premise of this interview was to see how she browsed her news feed on her Facebook mobile app, but I was also able to squeeze in some questions about her physical activities at the gym. Sarah is a user in our target audience because she loves exercise and believes that “being in shape is 20% about working out and 80% about what you put into your body.”

I conducted a this contextual inquiry between classes at Sieg Hall. We sat next to each other on a couch as I watched her browse her Facebook news feed. I noticed that she would skip over many comments until she saw someone of importance posting or a post of an image. She told us that “there is too much to look at so I focus on who I normally talk to and the pictures. The

pictures are usually interesting to look at.” She also expressed that she likes to look at pictures on Pinterest for fitness motivation and is in a few Facebook groups that post inspiration images regularly.

Towards the end of the interview, I asked Sarah why she worked out with the same girl at the gym, for every time I see her she is always with the same partner. She replied that they are similar in strength so they don’t have to change much when lifting, and that “it is a competition to see who can be better.” She also talked about consistency and reliability.

Contextual Inquiry Results

Cost of Food

Beau and Sarah expressed concern for the cost of food. As students, we make poor food choices, whether it be to save money or buy quantity over quality. Quality typically correlates to increased cost as students, it is difficult to always eat healthy. Beau expressed that he is frugal with his money and will buy minimal things to survive. Sarah also expressed concern for food cost. She commutes from home where her mother buys breakfast and cooks dinner. She told us that “if I had to cook all my meals and pay for the ingredients, I would be eating a lot less and that would directly impact my physical health.” She was referring to the 20% working out and 80% food consumption motto she lives by. Justin’s view on food cost was based more on whether the food was something that was easily obtainable like already in the fridge versus having to go out and buy some. When given the decision he typically chooses quality over price.

Nutritional Decisions

All participants expressed concern when deciding what to eat. On a daily basis, they all are given multiple options, whether it be in the food court at the HUB, or the restaurants on University Ave. Justin told us that usually he would go for the healthier choice when given options. Also, to reiterate, Beau told us “you are what you eat”, and that he wanted to moderate what he consumes to supplement a healthy lifestyle. Sarah also explained that at home, her mother usually cooks foods high in fiber, protein and carbohydrates. She talked about hitting her nutritional macros, consisting of a certain percent of proteins, carbohydrates, healthy fats, and fiber.

Workout Buddy

Both Beau and Sarah worked out with a friend. The rationale is two-fold, one because of safety reasons, and two because it helps motivate progress and form. Most of Justin’s physical activities take place with a team or group, but he doesn’t necessarily work with a specific person as much as he works as part of a whole. Beau explained that when he works out by himself, he tends to slack off and just go through the motions. This is detrimental to a workout and a waste of time because when you slack off, you are jeopardizing form. Also, Sarah expressed her reasoning that it acts as motivation. She want to improve herself every time, and having someone there holding you accountable aids in progress. “It is rewarding to see her and I increase the weight for our squats consistently.

Imagery vs. Text

Sarah showed more interest in images vs. text while browsing her Facebook news feed. a picture is worth a thousand words, and the use of imagery for motivation can be something added to our application. She expressed that she likes to look at images for motivation. We could potentially add something similar to SnapChat, and send image motivation from user to user.

Top Dawg

Every participant told us, in their own way, that they wanted to be “top dog” Justin said that he wanted to be the best on the playing field, in school, and in ROTC. Beau also told us that he works out with his friend because he wants to be stronger than him. He told us that “having someone there, that you want to beat, is a great motivator.” Sarah also expressed the same feelings about working out with her friend and competing against her while they work out.

Existing and New Tasks

Easy Task: Quantifying Personal Health

Timmy is 21 years old and currently a UW student who is fairly conscious of his health. He is in Phi Iota Tau fraternity, commonly known as FIT, and loves to watch sports with his friends. It is fall quarter and that only means Husky football on Saturdays and NFL Sundays. On an average day throughout the week, Timmy tries to eat three balanced meals and work out on a regular basis. However, he begins to notice that Saturday and Sundays are becoming detrimental to his health. He thinks back and he realizes that on Saturday he consumed several beers and alcoholic beverages and ate a couple hotdogs and fries for lunch and missed dinner because the game was at 6:00pm. He also decided not to go the gym on Saturday and Sunday because he wanted to watch the game with his friends and subsequently was too drunk/hungover to go later.

Timmy would like to be more self conscious about his food consumption and his physical activity. He wants to live a healthy lifestyle, but it is difficult when there is so much going on during the weekends that hinder him from doing so. This task could be carried out by users similar to Timmy, many students desire the ability to self quantify some aspects of their lives. Especially with midterms creeping up on students, it would be helpful to monitor nutrition and physical activity.

Moderate Task: Browsing and Messaging on news feeds

Tammy is 20 years old and a student at the UW studying Communications. She lives in the dorms and spends most of her down time at Odegaard browsing her Facebook and doing homework. Tammy is interesting in event planning and organizing and she loves to stay in tuned with everything that is going on. Her news feed is packed with posts from groups that she is associated with, friends sharing information, and events that are coming up. However, much of the information is irrelevant to her and she only pays attention to a few people who post regularly. She also loves to browse her pinterest where she looks for recipes and health

information, as well as workout plans.

Tammy wants to follow her friends' posts on their news feeds. She wants to stay up to date with what her friends are all doing and saying. She finds a post that is of particular interest to her, saying "Heading to the IMA, its gym time :)" with a picture of her friend in her workout clothes. Tammy sees this and wants to know when she is going because she wants to tag along. Tammy has been studying for her midterms and a trip to the gym would help her relax a bit.

Users like Tammy browse news feeds on a daily basis and transfer information with friends regularly. In this technologically driven time we live in, people are more reluctant to interact face to face when they can communicate through text or other means. Users use news feeds to stay in the loop and to learn what is currently happening.

Hard Task: Being Top Dawg

Jimmy is one of Timmy's fraternity brothers in the FIT house. Jimmy is a very competitive individual in everything that he does. He holds pride in the fact that he achieves deans list quarter after quarter. He also loves to compete in intramural sports, and hates losing. Jimmy loves to workout with his best friend Timmy, and they go to the gym regularly. They push each other and try to improve slightly each time. They use each other as motivation to eat healthy and improve their physicality.

Within Jimmy's fraternity, he also competes to become the strongest in his pledge class. Like most fraternity members, the entire pledge class is self conscious about their health and outward appearance. They strive for excellence in academics as well as personal health. However, the entire pledge class decided to compete against one another to see who can mold and maintain the best physique by Spring quarter.

Jimmy wants to quantify what he eats and puts into his body. He believes that bodybuilding is not just going to the gym and "pumping iron" but a combination of proper diet and nutrition and a splash of working out. Jimmy wants to make sure that he eats enough carbohydrates, fats and proteins every day to ensure his body receives the necessary nutrients to sponsor muscle growth. However, sometimes it is difficult to be picky because their cook doesn't offer much variation in her planned meals. Also, being in a fraternity setting means the weekly parties and drinking which introduce sugars and empty calories to his body.

He also needs to balance his school schedule to reserve some time for the gym. Jimmy tries to go to the gym five times a week and desires "gains" or improvement. Nutrition does most of the work, but without the proper exercise, there can be not muscle growth or formation.

Jimmy must balance his schedule around academics, gym, nutrition, and social life. It takes a lot to be "top dog" and Jimmy is willing to put in the time and effort. Jimmy is very competitive and strives for excellence in all he does. Many users can be seen as similar to Jimmy because every single person is competitive by nature. People love being better than others, it is wired into our DNA. Although, only 13% of the UW population is in the Greek System, and

not everyone has the desire to be on top. Everyone competes, whether it is academics, job hunting, physical activity or the quantities of beers they can consume...

UI Sketches

Timmy07 1234 Filter

Jimmy has gained 50pts
From --- 1/1/11 7:04

You did ~~~~~ 1/1/11 6:30

You did ~~~~~ 1/1/11 0:00

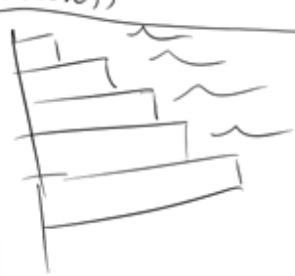
~~~~~

~~~~~

Account | Leaderboards | Friends

Timmy07

Fitness 737





Diet 449



Timmy07

1234

Points 1234 Filter

Challenges | Leaderboard | Avatar