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CS 160

5 September 2018

Design 01: Watches in the Wild

Assignment Part I

Interview 1: 20-year-old US Marine

Question 1: When was the last time you remember not having your phone readily available (i.e. in their hand) and wanted to access something using your mobile phone (i.e. make a call, look at the BART schedule, reply to a message, play a game, etc).

ANSWER: Due to the nature of my work (US Marine) there are continuous periods, up to months at a time, where I cannot access or use my phone. Some examples of this include when I was at boot camp this past summer and, in the future, when I am deployed. It isn't authorised, or safe for myself, others, or the phone itself to be taken into some of these field environments.

Question 2: Where do you usually keep your phone?

ANSWER: Phone usually goes in my right jean pocket when I'm out and about, my right sock when I'm in military uniform, or if I'm at home it'll be on my bedside charging from my laptop.

Question 3: What was the task you wanted to perform?

ANSWER: Check his text messages and social media in order to connect with loved ones and friends (since this person is from Australia and his friends and family are in Australia).

Question 4: In terms of convenience, would you prefer to have some sort of functionality on your watch, as opposed to your phone?

ANSWER: I kind of wish the watch had the full functionality of the phone, as implausible as that is. I wish that it was easier to type messages on it than it is. I also wish that it was less delicate and more hardy, so I could take it into field environments like a regular watch.

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Interview 2: 40-year-old artist who makes and sells different types of paintings (mostly oil and canvas)



Question 1: When was the last time you remember not having your phone readily available (i.e. in their hand) and wanted to access something using your mobile phone (i.e. make a call, look at the BART schedule, reply to a message, play a game, etc).

ANSWER: I interviewed her on Sunday, August 26th and she said the last time she didn't have "easy" access to her phone when she needed it was the day before that (Saturday, August 25th).

Question 2: Where do you usually keep your phone?

ANSWER: Usually, she keeps her phone in her purse or, sometimes, in her pant pocket.

Question 3: What was the task you wanted to perform?

ANSWER: She forgot her phone at home and was communicating with a potential buyer via iMessage for one of her paintings but had no idea whether the buyer had messaged her or not. Specifically, the buyer said he would get back to her regarding what dimensions he wanted the painting to be.

Question 4: In terms of convenience, would you prefer to have some sort of functionality on your watch, as opposed to your phone?

ANSWER: YES...Replying to messages would be a very convenient functionality to have on a watch, in situations where she forgets her phone, like she did. She also said that she uses a neighborhood iPhone application that keeps her aware of the events happening in her

neighborhood. She also posts on this application whenever she has an “open artist studio”, so that people can come by her house and take a look at her paintings. She said it would be awesome if the watch could simply buzz or notify her if someone messages her on this neighborhood app.

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Interview 3: 30-year-old weightlifter who works out regularly at the gym

*****Interviewee preferred not to take photo*****

Question 1: When was the last time you remember not having your phone readily available (i.e. in their hand) and wanted to access something using your mobile phone (i.e. make a call, look at the BART schedule, reply to a message, play a game, etc).

ANSWER: I interviewed him on Saturday, September 1st, and he said the last time he didn't have his phone readily available was a few days before that (Wednesday, August 29th).

Question 2: Where do you usually keep your phone?

ANSWER: Usually, he keeps his phone in his pocket.

Question 3: What was the task you wanted to perform?

ANSWER: He uses an iPhone application (*MyFitnessPal*) to record gym workouts (i.e. type of exercise, number of reps, number of sets, time taken to complete exercise, etc.). I got a chance to talk to his workout partner as well who said that he also uses an iPhone app, which leverages accelerometers and gyroscope sensors on the phone to automatically log workouts. The problem is that he has to strap the iPhone onto his arm, which is kind of cumbersome and annoying.

Question 4: In terms of convenience, would you prefer to have some sort of functionality on your watch, as opposed to your phone?

ANSWER: He definitely said that if the same functionality existed on the watch it would be really convenient (he could simply crank/turn the dial to input the number of reps he did) because using a phone with sweaty fingers is annoying. His friend said that he would love it if the automatic logging feature was implemented on the Apple Watch, since he always wears his Apple Watch with him. Both of them emphasized that the watch UI should be as simple as possible and should leverage notification features (like buzzing or vibrating).

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Reflection

A recurrent theme from these interviews was that people preferred to have everyday "necessary" functionalities on the Watch, such as messaging and connecting on social media. Even for the gym-goers, their "necessary" functionality was being able to log their gym workouts. All of the interviewees seemed to share the belief that the Watch should be able to perform these "necessary" functionalities, while minimizing the actual time spent interacting with the Watch interface, since the screen is small and their fingers are big.

Assignment Part 2

Design Ideas (Collaborators: Josh Goldman, Madhav Soni)

1. Application that helps artists connect with potential buyers in their neighborhood.
2. Application that makes the Apple Watch buzz when a fellow military person is in close proximity.
3. Application that connects military people with their families.
4. Simple navigation/compass application for the Apple Watch for military applications.
5. Apple Watch app that automatically logs your exercises in the gym (reps, sets, time, etc.).
6. Application that sends you a notification saying when to leave your apartment/dorm to reach your next class by factoring in Berkeleytime (10 min extra).
7. Application that notifies you when the next BART train is (you can specify whichever lines are most interesting to you).
8. Application that updates you with the scores of your favorite sports teams (ESPN on the go). For instance, every time your sports team scores, your watch vibrates.
9. Apple Watch application that is linked to your home security system and buzzes any time a stranger rings your doorbell.
10. Apple Watch application that buzzes every time you pass a 5-star restaurant on Yelp during lunch time (user should have ability to control when this setting is on).
11. Receive push notification when friend is within certain radius/visited starred location.
12. Sync Spotify with Apple Watch and iPhone, so that lyrics appear on Apple Watch once you play that song on your iPhone.
13. Shake watch to play random song on Spotify playlist.
14. WebEx-style application for your Apple Watch → allow users to "call in" to meetings through the Watch.

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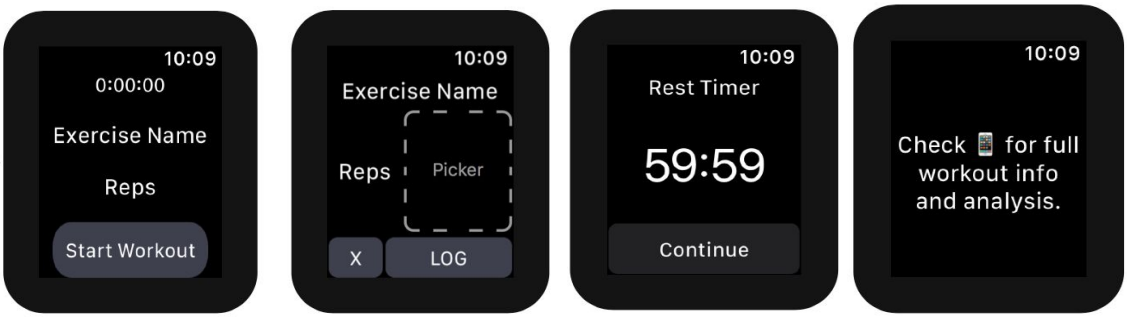
My favorite idea was to develop the automatic logging functionality for gym exercises because it is something with which I can personally relate as I, too, manually record my gym workouts when I go to the gym. It is also something which can be seamlessly integrated into the Apple Watch, since the watch has the same accelerometer and gyroscope sensors as the iPhone, thus eliminating the need to strap your phone onto your arm.

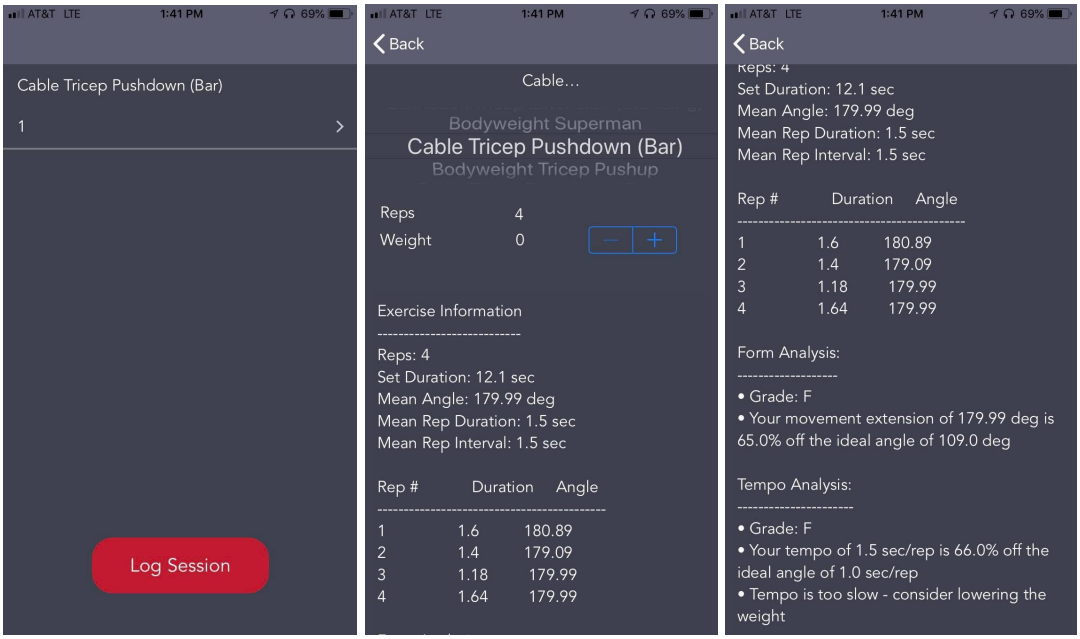
Prototype

Watch Design Screenshots



The watch screenshots are meant to show the workout summary for ONE particular exercise. The first screenshot shows the number of reps for a given exercise. The second screenshot shows how a user can select how many reps he/she did. The third screenshot is meant to indicate the rest time in between sets.

Phone Design Screenshots

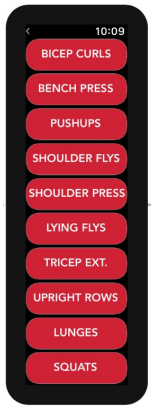


The phone screenshots are meant to show the workout summary for a particular individual. The user can select the exercise that he/she did, and see the entire information for that exercise (i.e. number of reps, number of sets, set duration, form and tempo analysis, etc.).

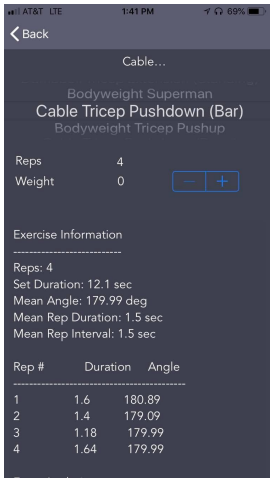
Test Insights and Feedback Incorporation

I was fortunate enough to be able to test my prototype on the same person who I interviewed. The user loved the ability to simply input the rep count in on his watch using the crown/dial on the right side of the watch. Aligning with what the interviewees said about watch notifications, the user really liked the idea that the watch could buzz to indicate that the "rest" period between sets was over.

I also showed him what the result would look like if I compiled his entire exercise information on the watch itself. Essentially, the user could click on the appropriate exercise, and the relevant information (reps, set duration, mean angle, mean rep duration, etc.) would show for that exercise.



However, the user said that he would much rather prefer to see the aggregate information (i.e. his entire workout summary) on the phone itself, which has a bigger screen and, thus, is easier to scroll through, as opposed to going back and forth on the watch. That is why I put together a quick mock-up of what the design would look like if I displayed the entire workout information on the phone. I then showed this design to him, and he said he loved it!



Conclusion

Generally, people seemed to like a healthy balance between the watch and the phone. They preferred an easy-to-use UI on the watch, since the screen is significantly smaller compared to their fingers. They preferred to deal with longer chunks of text or data on their iPhone. In other words, the watch is better for handling subsets of the larger application. So, for the iMessage app, this means that the watch should only handle direct “in-the-moment” messages, and leave the entire conversation or iMessage history for the iPhone. For MyFitnessPal and other digital diaries, this means that the watch should only handle data for the “in-the-moment” exercise, and leave the entire workout compilation for the iPhone. This is why I designed my watch prototype to only display information for one exercise at a time (i.e. the exercise that the user was currently doing). Then, the phone displayed the results for the entire workout, since scrolling through all this information on a watch would be too frustrating.