Discretionary Spending Final Report

Title

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Each Team Member's Name and Role

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Problem and Solution Overview

Everyone who reaches a certain level of financial security faces the same problem, how do I want to spend my money once my basic needs are met? Many have ideas about what discretionary items the want to spend on -a trip with friends, a nice pair of boots, a new gaming system, but many find themselves using up their discretionary money on small items coffee, beer, movie tickets without even noticing. There is a tension that exists between long term goals and short term gratification. We believe that a smartphone app that would track discretionary spending, help people reflect on what they spend on, and help them set goals for their spending could solve this problem. This app would help people monitor their spending and make sure that whatever extra money they have they are spending on the things they actually want to be spending on.

Contextual Inquiry Target, Stakeholders, and Participants

For the first inquiry we observed mall shoppers trying to reach participants from a wide range of ages and socioeconomic backgrounds. We chose a mall environment in order to reach those who had recently made purchases so we could discuss their discretionary spending decision in the context of a specific event. The participants that we spoke to ranged in age from

20 to 65+, were both families and single individuals, and had a wide variety of financial comfort. No one we spoke to used budgeting apps, but most had at least mental strategies to help them budget.

Our second inquiry was with Nicola who is very passionate about tracking personal spending with a focus on increasing her total savings. Nicola works part time at a coffee shop but also receives some money from her parents for rent and groceries. She initially wanted to make budgets for her monthly spending using excel spreadsheets but had problems gauging what her past spending amounts were in order to set realistic goals. From there she started manually entering every purchase she made into another excel spreadsheet, categorizing these purchases and then trying to analyze her spending habits. She stopped this after 6 months because she got tired of manually entering her expenses, she didn't feel like the amount of work she was putting in was resulting in goals that were helping her save and she found it hard to continue without any tangible incentives for her saving. She then tried to use Mint, which she liked because it synced with her bank account but disliked because it had no way to manually enter cash purchases, she felt like there were a lot of extra features that she didn't want. She then moved on to trying another app Monify, which she also did not use for a long period of time.

The third inquiry that we conducted was with a female UW student. She uses Mint to track her spending. She does this because her parents only send her money at the beginning of each quarter, and she has to control her spending. For the unnecessary spending, she keeps a list of the items she want to buy for each month. At the end of each month, she'll make a decision on whether or not to buy items from her list depending on the budget. But in terms the small amount purchase like coffee, she doesn't have too much control of that.

Contextual Inquiry Results and Themes

Many participants knew that they should budget and most made mental goals but in practice do not tend to follow goals closely because they do not keep track of all of their purchases and do not have a more concrete way of goal setting. Participants that did want to make a budget all faced the initial obstacle of not knowing how much they have spent in the past resulting in not being able to come up with reasonable goals for spending.

Many described spending money on small ticket items without thinking about it whereas taking time to think about and decide not to spend on larger ticket items that they really wanted. We found that people were largely unaware that the small purchases that they were making could potentially add up to the larger ticket item that they wanted.

For the people that used mobile apps, inputting purchases into apps was described as burdensome. The amount of work that it took to track spending versus the result that they were getting out of the tracking, was described as not worth the effort. The users would sometimes stop using an app due to lack of flexibility, or lack of in-app options. The granularity of budgeting tended to vary heavily from user to user.

Answers to Task Analysis Questions

1. Who is going to use the design?

People who will use the design would be people who have enough money to pay for all of their necessities, but then also have money left over. The typical user will have excess funds to spend, but limited in that if they partake in too much discretionary spending, then they may not have the means to go on vacation or buy a birthday present.

2. What tasks do they now perform?

Many people do mental budgeting, write things down to keep track of spending, take only limited amounts of cash out of the bank to use for discretionary spending, use excel spreadsheets, use banking apps to monitor account balances, or use some other form of a budgeting app.

3. What tasks are desired?

Many users want to be able to sync with bank account, so they know exactly how much money they have at a glance. They also tend to want to keep track of credit and cash purchases while being able to categorize and monitor these purchases. Many people want to have a spending goal or limit or a saving goal or limit in order to motivate less spending. It is important that users are able to review their current progress in relation to their goals, and also review from a larger scope, by the month, a few months, or by the year. The user also may want to be notified or reminded before they spend.

4. How are the tasks learned?

The design will be intuitive based on general past knowledge leading to easily learning the tasks that are repeated regularly (entering purchases, reviewing current spending, etc.). We may also want to add some tutorials for tasks that are performed less often (choosing categories, setting initial goals, reviewing month's spending) in order to make sure they are easily learned by those who do not have experience with data analysis or budget making.

5. Where are the tasks performed?

There are three main times when the tasks are performed, during the decision making process when deciding to make a purchase, during the goal setting or budgeting process, or during the reflection of past spending or viewing progress towards goals.

6. What is the relationship between the person and data?

The data shows a person's spending trends by frequency, amounts, and location.

7.What other tools does the person have?

Since our tool is focused on discretionary spending, a person may have other methods to monitor their wider array of finances. They could potentially have bank apps, excel spreadsheets, or other budgeting applications.

8. How do people communicate with each other?

The tasks involved are performed by a solitary user and are not based on communication between users.

9. How often are the tasks performed?

Tasks are performed possibly multiple times a day or per week based on user spending and checking/updating budgeting or income information.

10. What are the time constraints on the tasks?

Any manual entering of data should happen within the same day so that the user does not forget. Because people do not spend much time thinking about discretionary spending, tasks should be brief, otherwise it is likely that the user will not want to spend the time and effort completing them.

11. What happens when things go wrong?

People need to have a way to edit entries if they enter them wrong manually or if the syncing with the bank fills out something automatically that they don't want.
A way to alert you if it has not been able to sync with the bank in a while and purchases might not be up to date. Also a way to show that an entry has not been posted to cloud.
Making unrealistic budgets and needing a way to edit them.

Proposed Design Sketches - "3x4":
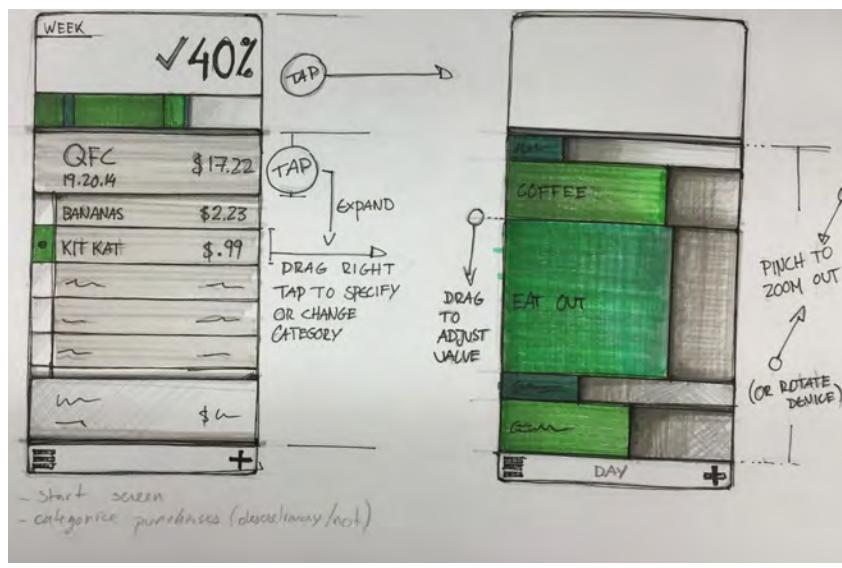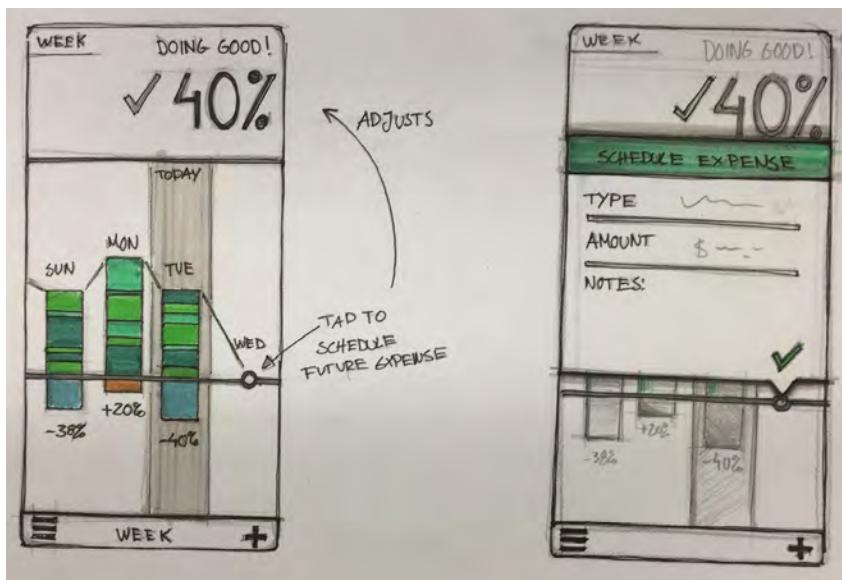
Our first design is very focused on linear progression and looking forwards and backwards

through time. It focuses on easily transitioning from daily to weekly to yearly overviews. Because of these changing time frames we are also very focused on having flexible budget categories that can be adjusted easily as one looks at their progression.

- For Juan to input future purchases he advances in the timeline and picks a future date to edit and add his planned spending.
- If Henry wants to review his progress, he pinches to zoom out and the app shows him past and present spending to show how he is doing.
- Terrance spent too much on coffee but managed to save on video games, he drags the category dividers to adjust and allow coffee more of his budget while reducing the video game budget.
- Pooja just went shopping for groceries, most of her purchase wasn't discretionary but she decided to treat herself to some chocolate. In the app she taps on the QFC purchase to select only the Kit Kat she bought as discretionary.
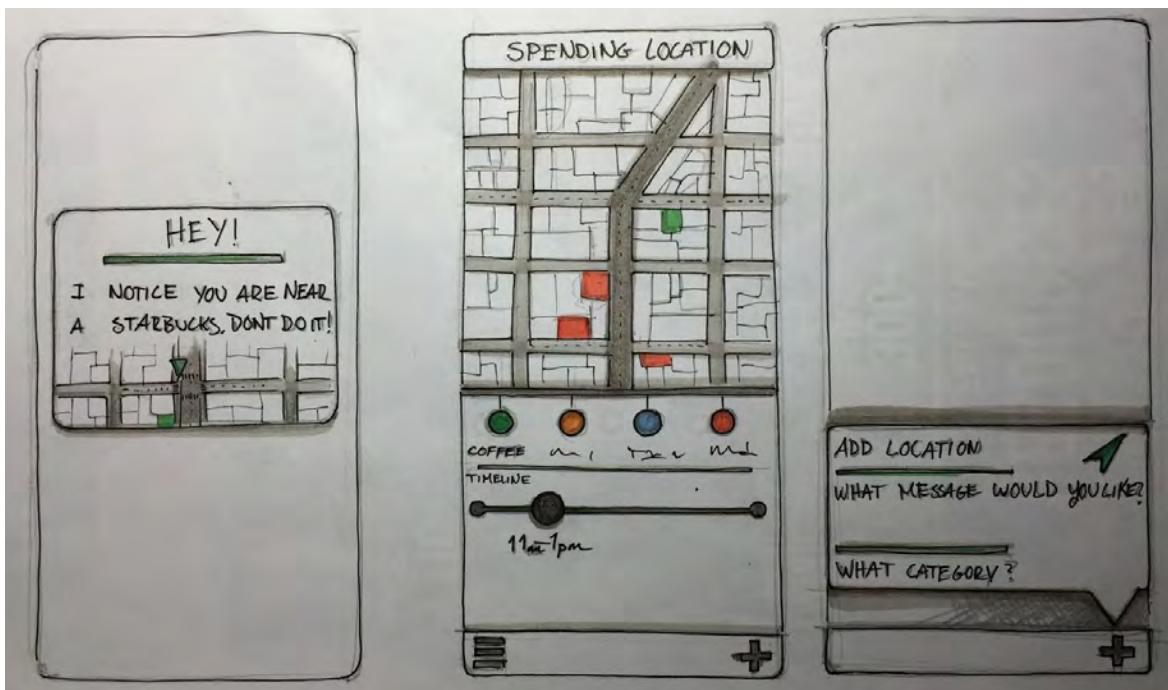
Our second design is focused on the idea of catching you before you make a purchase. It keeps track of the locations that you often make discretionary purchases. Then when you are near one of those locations it gives you a reminder not to make a purchase.

- To review his purchases, Dave can look over his purchase map to see the places he spends regularly.

- Jessica wants to categorize her purchases and She can look at the purchase map and view it with a different color for each category.
- When Henry is thinking about buying his garlic press he will get a notification from the app reminding him that he usually overspends at target and not to buy anything he doesn't need.
- Frany wants to get a reminder when she passes a new cupcake shop on her way home that she hasn't actually gone to yet but that she is always tempted by. She presses the plus sign in the bottom right side of the screen and adds a new location to get a reminder for and a custom message to not buy a cupcake.
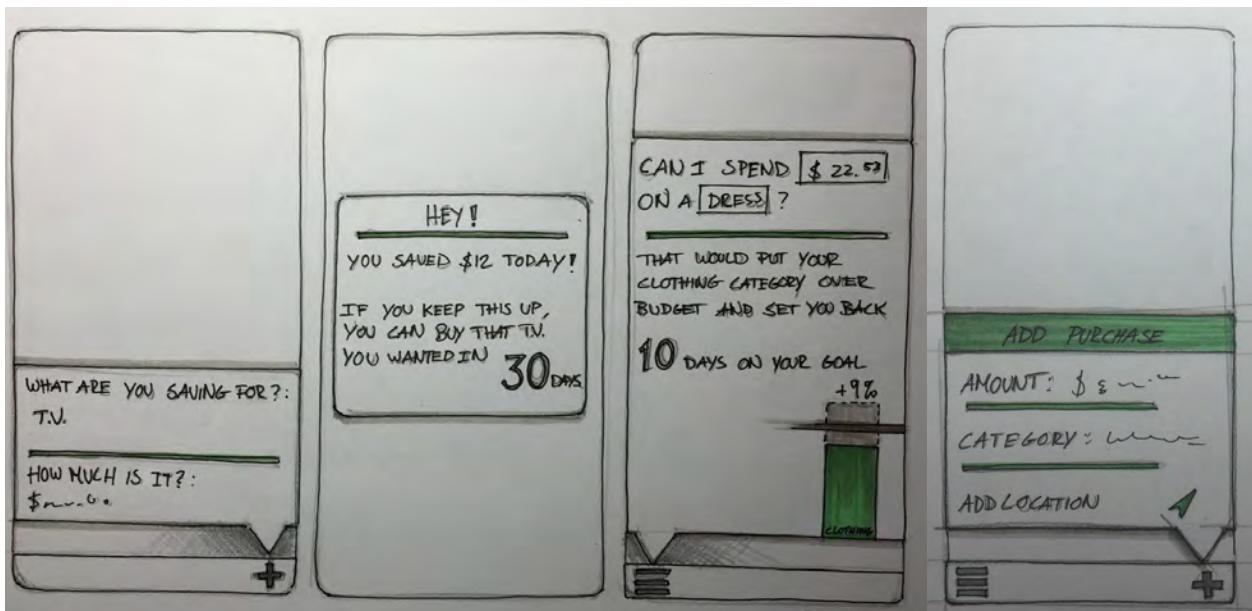
Our third design is focused on adding an incentive to saving. The user will choose a "reward" purchase and then based on how much they spend under or over their budgets will let them know how long until they can make that purchase.

- Tom walks into Best Buy and sees a TV is really wants. He knows that he cannot afford to buy it today, but would like to in the future. He inputs the TV and price into the app which will help him budget his everyday spending in order to be able to buy the TV by a certain date.

- Henry would like to review how he did today in relation to saving for his TV. The app tells him that he actually saved money for the day and gives him a projected date of when he will be able to afford the TV if he keeps up the good work.
- Lily wants to buy a dress, but doesn't know if it would fit into her budget or if it would set her back on reaching her spending goal. She quickly enters the amount and what she wants to spend on, and the app tells her that she is over her clothing budget and that if she made this purchase, then the app would set her back 10 days on her goal.
- Pooja is at Henrietta's Doughnut shop and pays for her doughnuts and coffee in cash. She wants to track her purchase, so she enters the amount, category, and allows the app to sync with her current location.

We chose to move ahead with a combination of the timeline oriented design and the rewards based design. This design allows people to easily see their discretionary spending habits over time and allows a user to set tangible goal/budget/reward and then visualizes progress towards it. The main tasks it enables are the ability to choose something that you want to save towards and an easy way to look at your recent spending habits while making decisions about purchases. We chose this design because it fit most with what we heard from people in our contextual inquiries, that they have general spending goals, that they wait on bigger purchases, and that they do not think much about smaller purchases. This design leverages those pre-existing habits in order to help people spend on things they actually care about.

Written Scenarios - "1x2"

Setting a Reward

Tom really wants to buy a new TV but he knows it is a little spendy for an impulse buy. He decides that he wants to cut back on his non-essential spending in order to save for it. He opens his discretionary spending app and clicks on the icon to add a new reward. He enters the name of the item, a TV and the price, $257. The app allows him to give himself an allowance and then applies the amount that is left over to his big purchases, allowing him to buy them as a reward, and incentivizing him to not spend over his monthly allowance. On days that Tom is under his budget he is congratulated because the time left till he can buy the TV has decreased. On days

that Tom is over his he is told that he will now have to wait longer. When he has finally saved enough money for the TV he will get an notification.

Visualizing Recent Spending

Henry is on his way home from work and is feeling a little sleepy. His path home passes by his favorite coffee shop and as he gets closer to it he thinks about going in and buying a mocha. When he gets to the coffee shop he opens his discretionary spending app and checks how he has been doing this week. He sees on the home screen's graph that he has spent over his daily budget the last couple of days. He doesn't want to spend over his budget today too so he decides to pass on the expensive espresso and make some drip at home.

Storyboards of the Selected Design

Set a Reward
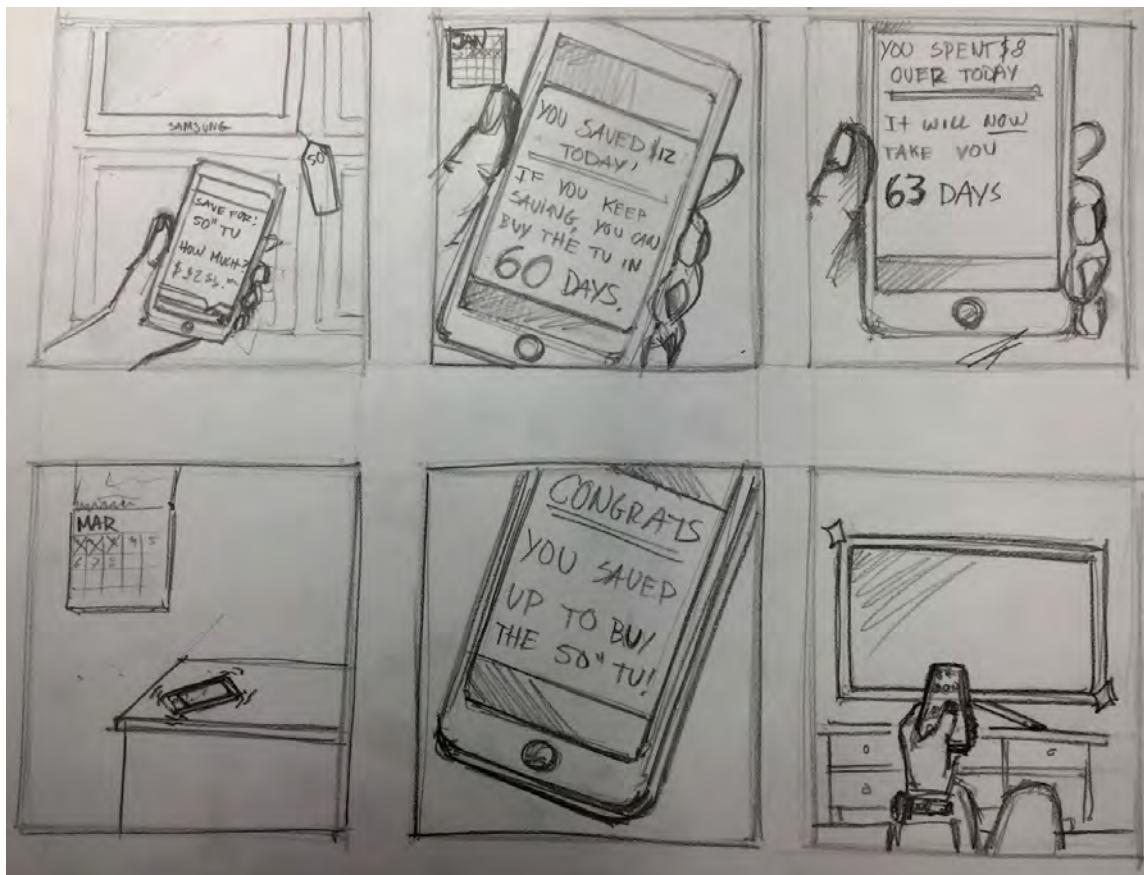
Visualize Recent Spending