A1: Needfinding 10/06/2016 Jingyi Ouyang A53108909

Observation

My studio topic is "Visualizing and interacting with history". Inspired by payment history shown in bank apps, my observation is focus on people using apps to manage finance. Compared to checking paper payment history, people using bank apps can easily check their payments anytime and everywhere. But after people scan their payment history on the phone, do they get further effective information except how much they just paid for a dinner or a shirt? Bank apps indeed provide people convenience, but they can provide more.

I designed a simple activity based on the fact people usually using payment history to estimate how much they spend within a period or in a certain field like restaurants. The activity has two parts. One is asking users to calculate how much money they spend last week. The other one is asking users to calculate how much money they spend in a specific field such as restaurants, markets and so on.

<u>User 1 - Zhiyu Gong(abbreviated as Z)</u>

Z is a graduate student who always uses her only credit card. When she was calculating her total payments in the last week, she used computer to search her payment history and calculator apps to calculate.

During the activity, she encountered several troubles. she could not find where to log in the recently updated bank website, so she went back and directly googled "log in" page. Her payment history only showed dates instead of what day it was, and unfortunately she did not remember the date, so she opened calendar to determine the date of last week. While she was calculating on phones, she had to keep

sliding her payment history web page to find information she needed. And she complained about reading the payment history over and over again to make sure not missing a payment.

Finally, she spent 3 minutes in each part of the activity.

User 2 - Sophie

Sophie is a PhD student who owns three cards. She used her phones to collect payments, calculator to calculate and her computer to record the amounts.

She totally opened two different bank apps and uber to collect all the payments she made last week. Even though she owns several cards, she uses each card in a specific field. So when she calculated the total amount of her restaurants' payments, instead of switching different bank apps, she only checked the payment history of the card she used for paying restaurants. It saves a lot of time. She opened computer and used email to make some notes in order to send her calculations to me. She was satisfied with these apps as she said they were really convenient for her.

This activity takes her 5 minutes.

User 3 - Kang Wu(abbreviated as K)

K is a new graduated student. He uses two cards, one of which is bound to venmo, a transaction app. He used two phones to check his payment histories and calculate respectively.

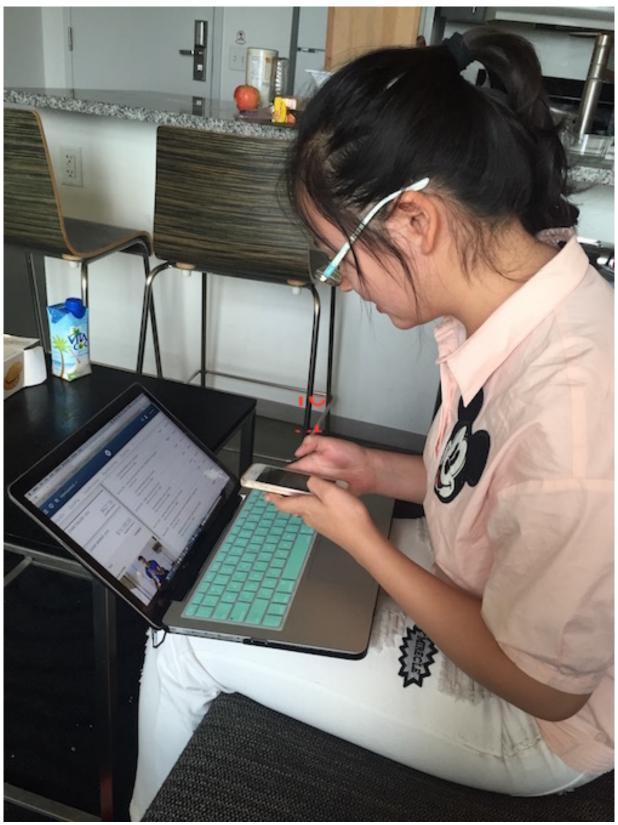
He met many problems during the activity. Before calculating, He

asked me the date because he did not remember the date of last week just like User 1 did. However, he still misread the date and calculate the amount incorrectly for the first time. He blamed this mistake on apps not showing dates visibly. It was his first time to use calculator app in a phone. He explored its functions for a while and then calculate. And when he calculated his expense on restaurants, he said he could not make sure that some payments were from restaurants, because the payment history only showed names without types. Using this bank app really took him a relevantly longer time to calculate the total amount. "Venom is better" he said. He showed me that venmo can add notes in each payment so he knew what he paid. But he also told me that sometimes he would forget to add notes.

He spent over 10 minutes to finish the activity.

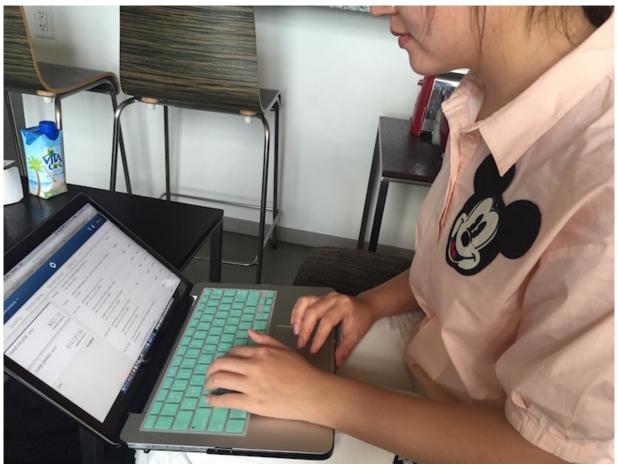
Photos and Sketches

I observed three people when they were calculating how much they spent last week



Caption 1: Because Z did not have a bank app, she had to open her computer to check her payment history. As the same time, she needed to

use the calculator on her phone. As the picture showing, she had to look at computer screen and phone screen alternately.



<u>Caption 2</u>: She was sliding the payment history up and down to make sure that she did not miss any payment. Every payment shown on the screen looks similar to each other, which made her have to watch it very carefully.



<u>Caption 3</u>: At first, K wanted to use his phone to both check the payment histories and calculate. But he found it was a waste of time to change apps frequently. So he borrowed another phone as a calculator. He had some trouble in using this calculator because the keys were small. And he needed to look at two screens at the same time.

User Needs

- 1. Users need a way to easily get to know the date of a certain payment, because the users(K,Z) both did not know the date before calculating.
- 2. Users need a way to know more details of payment history.
- 3. Users need a way to efficiently remember payment history without checking it over and over again, because the user(Z) complained about

reading

payments several times to make sure not missing any valid information.

4. Users need a way to get to know their total expense in a period quickly, because they spent several minutes in calculating to just obtain a simple number

of their total expense.

5. Users need a way to easily get to know how much they spend in a specific field like restaurants, because not all the users are like Sophie who organized

her several cards into different use.

6. Users need a way to take some notes of their payments conveniently, because the user(K) sometimes feels troublesome to make

notes on venmo.

- 7. Users need a way to help them recall a payment long time ago, because the user(K) can not remember what a payment was for just looking at the name of the payment.
- 8. Users need a way to help them manage their expense based on their payment history, because different users spend differently in a same field.
- 9. Users need a way to prevent misreading payment history, because the user(K) feel impatient when he found the mistake and had to calculate again.
- 10. Users need a way to distinguish different parts of a payment like amount, date etc. when getting a quick view.
- 11. Users need a way to get access to the payment page quicker.
- 12. Users need a way to check and manage their payments at the same interface without changing apps frequently, which wastes time and bothers users(K,Z).
- 13. Users need a way to prompt them to use the back apps, because there is still someone who do not use bank apps on the smartphone(Z).

14. Users need a way to reduce their time on collecting data, calculating amounts and any other things that just process data.15. Users need a way to combine their payment histories from different banks, because most of them(K,Sophie) have more than one card needed to be manage.

Point of View

Bank apps do not provide enough efficient information for people to further manage their finance.