

Assignment 2

Alt n' Routez

Team: Monica Chang, Simran Jobanputra, Arlex Gole, Daiki Itoh, Yumei Jin

February 7, 2018

Interview Protocol

Interview Contacts:

Interviewee	Interviewer	Notetaker	Time
Michelle Porter	Simran	Daiki	Wednesday 1/31/18 12:15 pm
Travis Carless, PhD, GSA President	Daiki	Monica	Friday 2/2, 2pm
Warda Khan, Undergraduate	Monica	Simran	Friday 2/2, 3:20pm
Joy Maa, Graduate student CMU	Yumei	Yumei (voice recording + notes)	Thursday 2/1, 8pm
Shen Lu	Arlex	Arlex	Wed 1/31, 5:30pm

Materials Prep

- Hard copy of consent form
- Hard copy of questionnaire
- PC, note, pen
- If necessary, audio recorder

Introduction

- Hi, my name is [NAME] and I am working with team of students in User-centered Research and Evaluation to try to better understand the current state of transportation for off-campus students at CMU and exploring potential alternatives to transportation brought on by Port Authority service cuts.

- Would it be okay with you if I asked you some personal questions to to collect some data on this subject? All your information will be kept confidential.
- (Consent form signature)
- Would it be okay to take notes and record audio?
- (Get to know about interviewee. Background, hobby, nationality, # of years in Pittsburgh, etc.)

Interview Questions

- Commute routine
 - Where do you live? Is the district convenient for commute? How long does it take to get to campus?
 - How do you commute? Do you like it? Why or why not?
 - What time do you usually leave house? What time do you go home?
 - What do you do before you leave your house?
 - Do you stop by restaurant/coffee/grocery before the ride? Which transportation do you use in this scenario?
 - What do you do on the weekends? Do you go to campus on weekend? What form of transportation do you use?
 - Can you describe a recent occasion when you missed the bus and tell me what you did?
- Transportation
 - When was the last time you rode the bus? Where were you going to and from, and how long did you wait? When did you get on and off? Could you describe your experience from before getting on the bus to after getting off the bus?
 - Do you use other forms of transportation such as a car, bike, or Uber? If so, what do you use and when do you use it? Describe your experience using it. If not, have you considered other forms of transportation?
 - Have you heard about PA planning for service cuts? What do you think about it?
 - What is your preferred mode of transportation for commuting to and from CMU? Why?
- Tools
 - Do you use the CMU shuttle app? Which features do you use? When do you use it? Could you try using it? Is the app useful?
 - Do you use any other resource/app for commute? Google Maps? The Transit app?
- For supporters
 - What is your role as a X?

- Could you tell me about your projects related to the CMU transportation? What is your routine work?
- How frequently do you communicate with the other CMU supporters? With Port Authority?
- For Michelle
 - Does CMU have any current plans for adding/improving transportation for students on campus to compensate?
 - Do you think external companies would give us new deals for riders based on the cuts (ex. Uber, Lyft, etc.)
 - What changes will be made to tuition based on tuition cuts?
 - Could the cost of parking on campus potentially go down to compensate for cuts?

Wrap-up

- (Share your final interpretation of the user's routine and feelings about the current transportation)
- Do you have any other comments? If not thank you for taking time today!

Background Questionnaire (you may choose to answer or not)

- What is your age?
- What is your gender?
- What is your role/occupation?
- Where do you live? (general area, like shadyside, squirrel hill, ..., not too specific)
- What kind of transportation do you take to work/school?

Color Codes for Sequence Flow and Day-in-the-life Diagram

Color Codes

Triggers

Actions/Events/Specific Task

Intent

Breakdown

Time

Location

Tool

Design Idea

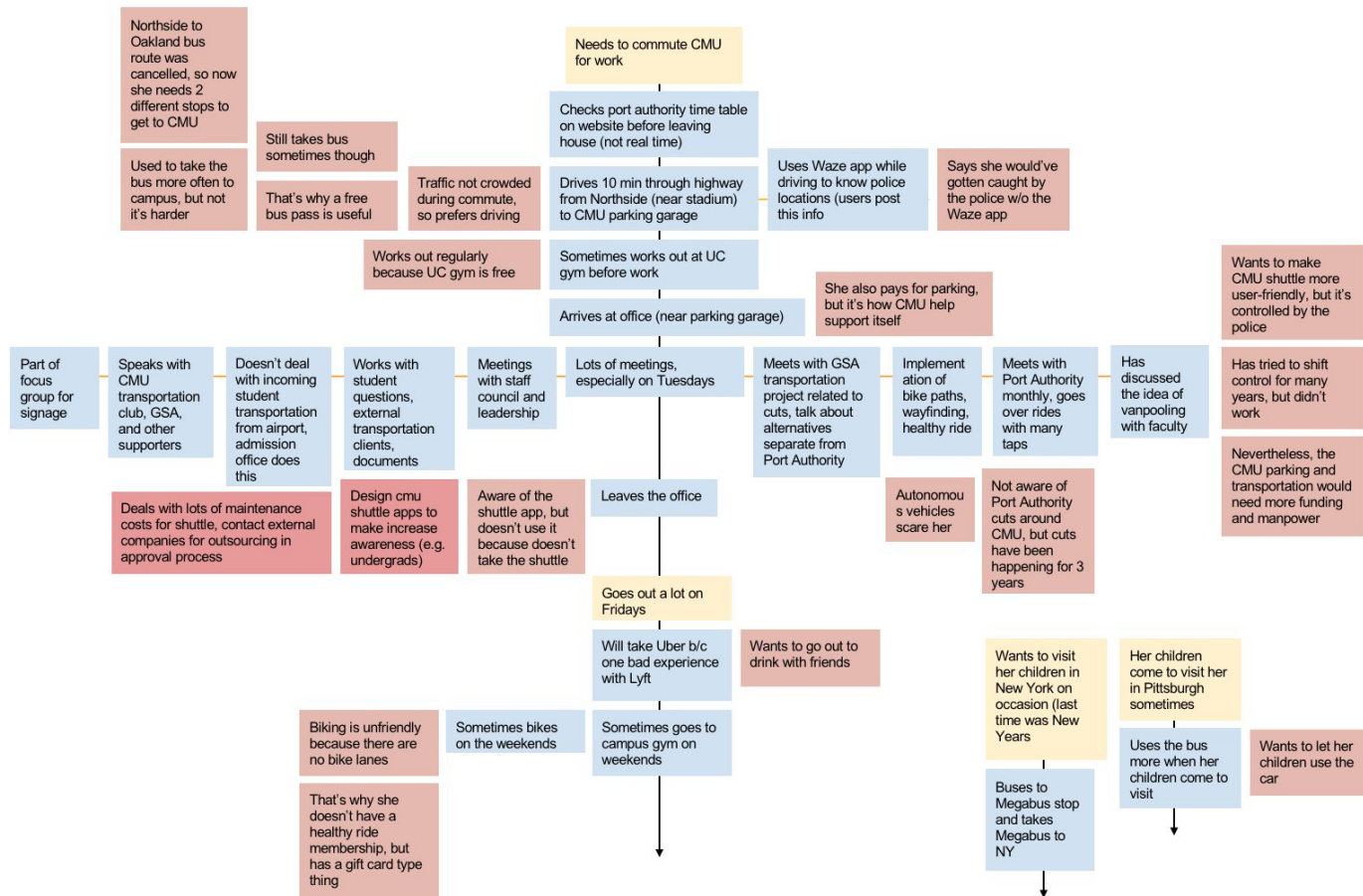
S1: Interview Notes

User Code	Action Number	Action
S1	S1-1	Cochair of Staff Committee
	S1-2	Transportation and Parking Director
	S1-3	At cmu for 16 years
	S1-4	3 years in administration, 13 years in parking
	S1-5	born and raised in pitt
	S1-6	age 48
	S1-7	2 college kids who attend school in nyc
	S1-8	parking is under facility management services
	S1-9	8 parking security officers
	S1-10	handles large events like commencement and construction
	S1-11	bicycle advisory council - supports bike parking on campus
	S1-12	implementation of bike paths, wayfinding, healthy ride
	S1-13	people are more aware of biking, but funding is low
	S1-14	She lives in the city, Northside, close to stadium
	S1-15	drives everyday to commute to CMU
	S1-16	starts work at seven in the morning . (early)
	S1-17	no traffic in the early morning - takes ten mins to get to work
	S1-18	bus is convenient to cmu
	S1-19	bus no longer available bc bus cuts (Northside-Oakland)
	S1-20	New way to campus is two bus routes
	S1-21	Still uses the bus to commute to other places on campus
	S1-22	She uses the freeway to get to campus
	S1-23	sometimes goes to the gym before work
	S1-24	has a free bus pass due to employment at cmu
	S1-25	works in transportation office, in the garage of cmu
	S1-26	the transportation and parking office closes at 4:30, which is when S1 leaves
	S1-27	she has an average 3-4 meetings a day
	S1-28	most busy with meetings on tuesday, for staff and leadership

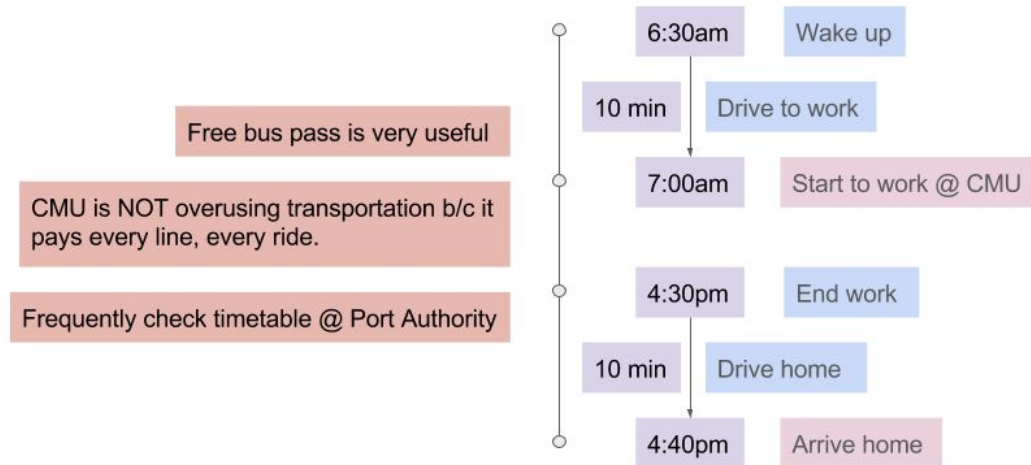
S1-29	part of the focus group for signage
S1-30	signage makes commuter routes easier and friendlier to use
S1-31	meets with GSA members on a project regarding transportation cuts and a new solution which doesn't involve port authority
S1-32	she has meetings for staff council and leadership
S1-33	outside of transportation, she mainly deals with student transportation issues
S1-34	not responsible for travel from airport to cmu for prospective students not manned by S1, manned by admissions office
S1-35	wants to focus on making the cmu shuttle bus user friendly
S1-36	cmu shuttle bus currently sits under cmu police, so no control by transportation office
S1-37	this shifting responsibility has been discussed for many years, but hasn't changed
S1-38	parking and transportation needs more funding and manpower to support the shuttle bus service
S1-39	there are 12 people on her staff, 4 admins and 8 parking security officers
S1-40	rarely goes to campus on weekends unless there is an urgent event (current events, commencement)
S1-41	goes on weekends to new york to see her children's bball games using megabus
S1-42	uses the bus in pittsburgh when her kids are home and are using the cars
S1-43	free bus passes are useful for her when her kids are around
S1-44	she frequently check port authority times on the website
S1-45	doesn't check port authority on phone (which is live)
S1-46	driving she uses waze to check driving and police location
S1-47	waze is a google app
S1-48	she claims that she would get caught driving too fast if she didn't use waze
S1-49	she uses uber a lot
S1-50	she uses uber most on friday
S1-51	she prefers uber over lyft
S1-52	she had bad experiences with lyft in pittsburgh
S1-53	she had bad experiences with uber in new york
S1-54	she preferred not to talk about why it was a bad experience
S1-55	uses uber on fridays to go out for drinks and to hang out with friends who don't want to drive downtown
S1-56	she turns on waze and leaves it in her car, just like google maps
S1-57	likes biking
S1-58	doesn't have a healthy ride membership
S1-59	has a healthy ride card she can use occasionally
S1-60	she prefers biking when she is traveling inside the downtown city limits

S1-61	infrastructure in pittsburgh is not biker friendly
S1-62	not aware of port authority cuts around cmu
S1-63	planning to have a meeting with GSA sometime soon to discuss potential cuts
S1-64	mentioned the article about cmu overusing bus taps
S1-65	article is incorrect
S1-66	cmu pays for every bus ride
S1-67	any ride counts even 10 ft
S1-68	transportation fee is partially covered by tuition
S1-69	fee is partially covered by the benefit pool
S1-70	we asked if she uses the cmu shuttle app
S1-71	she has never used the cmu shuttle app
S1-72	she has also never taken the cmu shuttle
S1-73	we asked about branding of the shuttle since undergrads are not aware of the service
S1-74	there are a lot of maintenance problems with the bus
S1-75	maintenance of the buses is expensive
S1-76	she had an idea to outsource shuttle services to an external company
S1-77	that way cmu doesn't need to man maintenance
S1-78	branding would still be consistent with cmu
S1-79	she already has a few candidates in mind for outsourcing transportation
S1-80	the few candidates being looked at are currently in the approval process by administration
S1-81	she speaks with other cmu supporters on a weekly basis
S1-82	supporters are gsa, transportation club, etc
S1-83	she meets with port authority roughly once a month
S1-84	she discusses the number of bus taps and most popular routes
S1-85	cost to park on campus is expensive
S1-86	more port authority cuts, there could be cheaper parking
S1-87	no concrete idea on parking plans yet
S1-88	parking passes are used as revenue for the school, which is much needed (may be hard to cut them)
S1-89	she pays for parking
S1-90	cmu needs to have a strategic demand management program
S1-91	currently working with an external consultant about how much transport could be improved
S1-92	a lot of faculty live in the northside
S1-93	thinking about a potential van for the employees who need transportation from the northside
S1-94	one frequently raised solution is autonomous vehicles
S1-95	she's scared about autonomous vehicles

S1: Sequence Flow



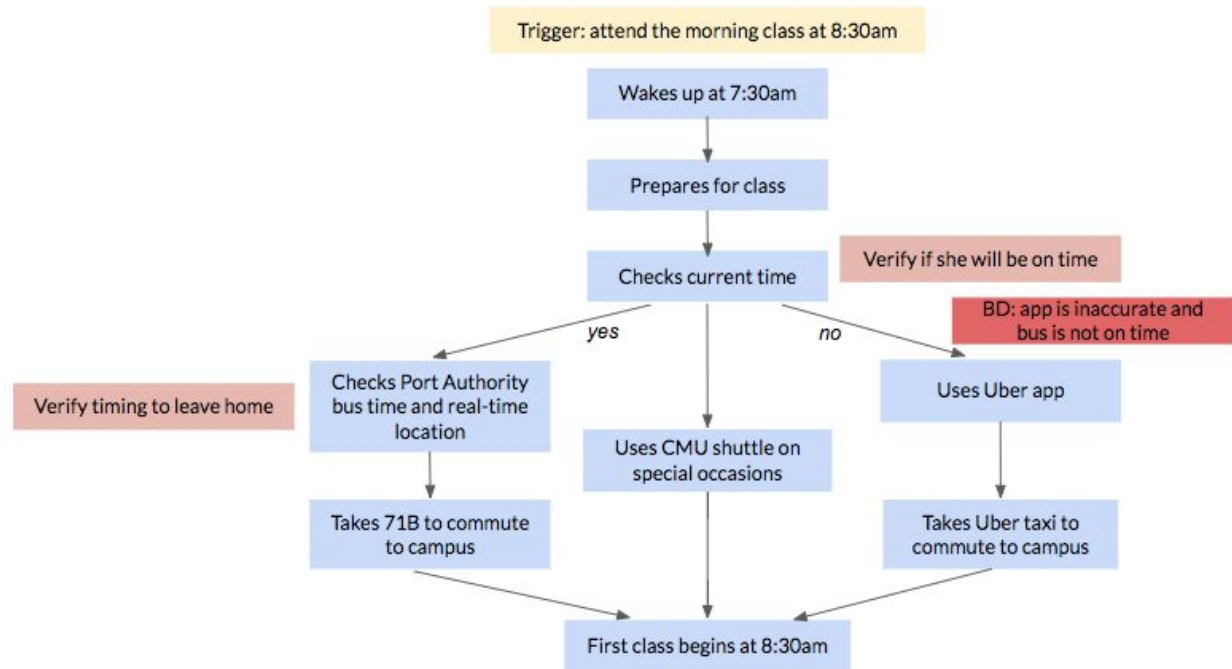
S1: Day-in-the-life Diagram



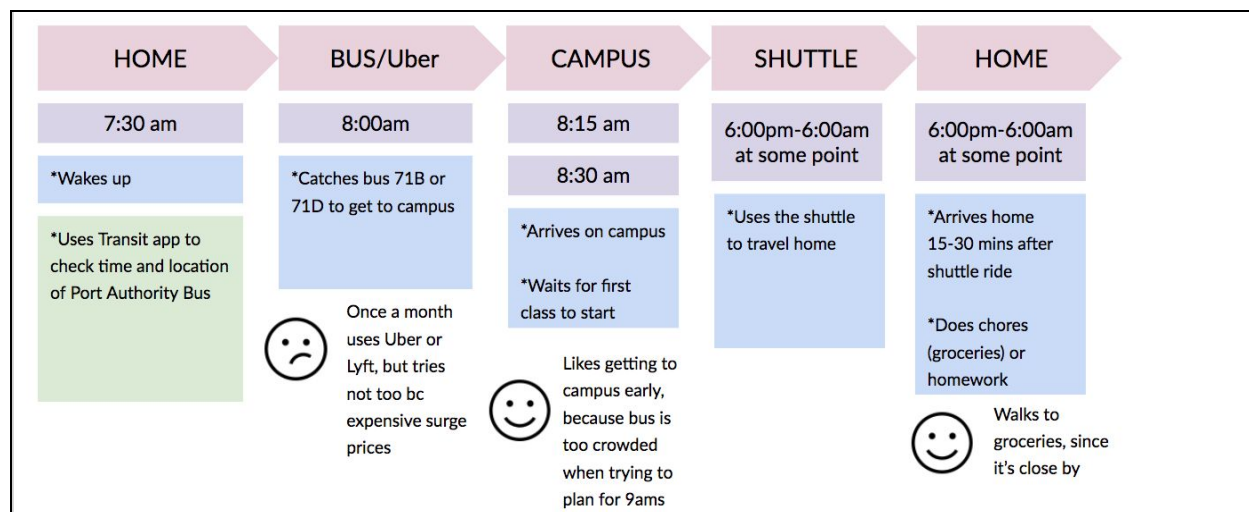
U1: Interview Notes

Name: Shen Lu		
Role: Master HCI student GSA president		
User: U1		
User Code	Action Number	Action
U1	1	lives in shadyside
U1	2	takes 71b or d
U1	3	early classes, has to wake up early
U1	4	wakes up around 7:30am
U1	5	wants to get 15 minutes before it starts
U1	6	the bus gets very jammed from morewood to s. craig
U1	7	will take uber or lyft if she's late
U1	8	but feels guilty about it, especially with surge
U1	9	comes to project for campus on weekends, takes the bus, depends on when meetings are
U1	10	experience on bus is comfortable around 8:30am but does have a 9:00am class, more crowded for that class
U1	11	besides uber or bus, not really other transportation
U1	12	didn't know about CMU shuttle app
U1	13	does know about shuttle, but doesn't usually see it
U1	14	has taken shuttle once or twice, but it comes every 30 min
U1	15	uses the night escort from time to time
U1	16	escort is convenient because you can tell the driver where to go
U1	17	used to take escort frequently
U1	18	uses Transit app to see when the buses come
U1	19	uses transit before she leaves the house
U1	20	struggle with the bus in the morning: 1) misses it if she wakes up late 2) the early one is too early
U1	21	walks for grocery shopping
U1	22	8 min walk to Giant Eagle
U1	23	when hanging out with friends on weekends, she takes the bus
U1	24	if a lot of people going to the same place, they uber together
U1	25	thinks pittsburgh transportation is actually very good
U1	26	thought pittsburgh was a small town
U1	27	likes that they provide public transportation
U1	28	transportation exceeded expectations
U1	29	pretty comfortable with bus

U1: Sequence Flow



U1: Day-in-the-life Diagram

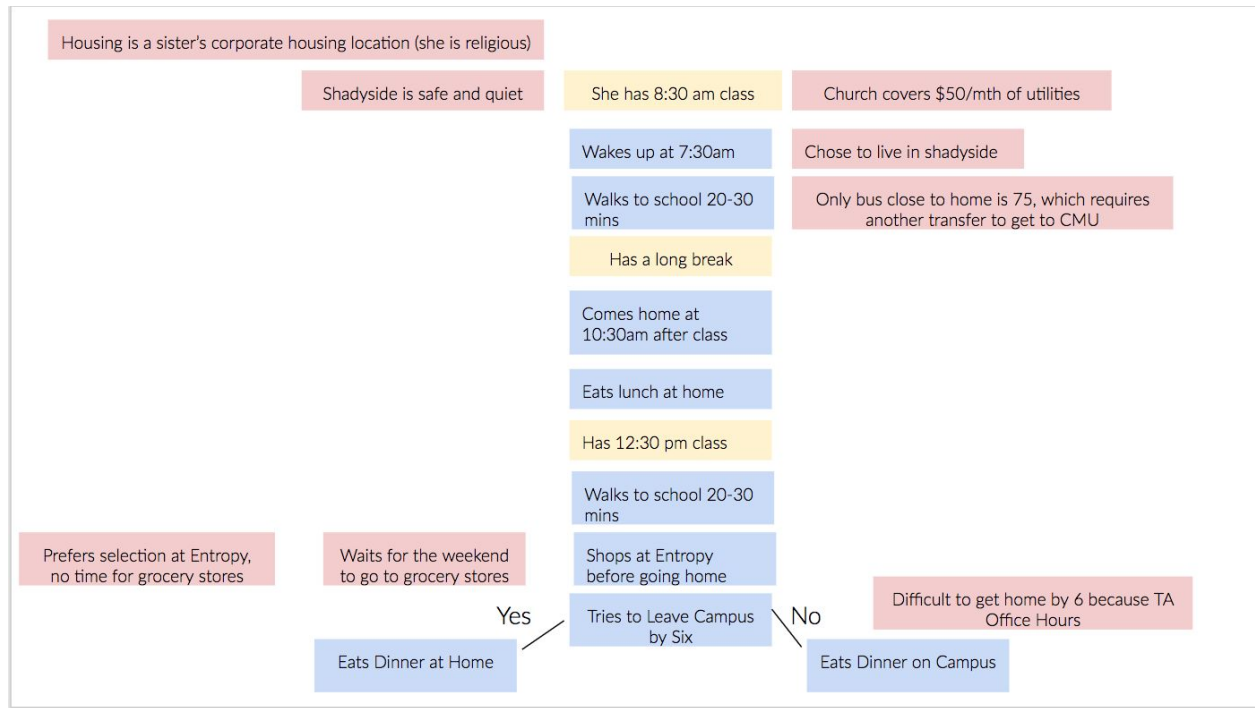


U2 Interview Notes

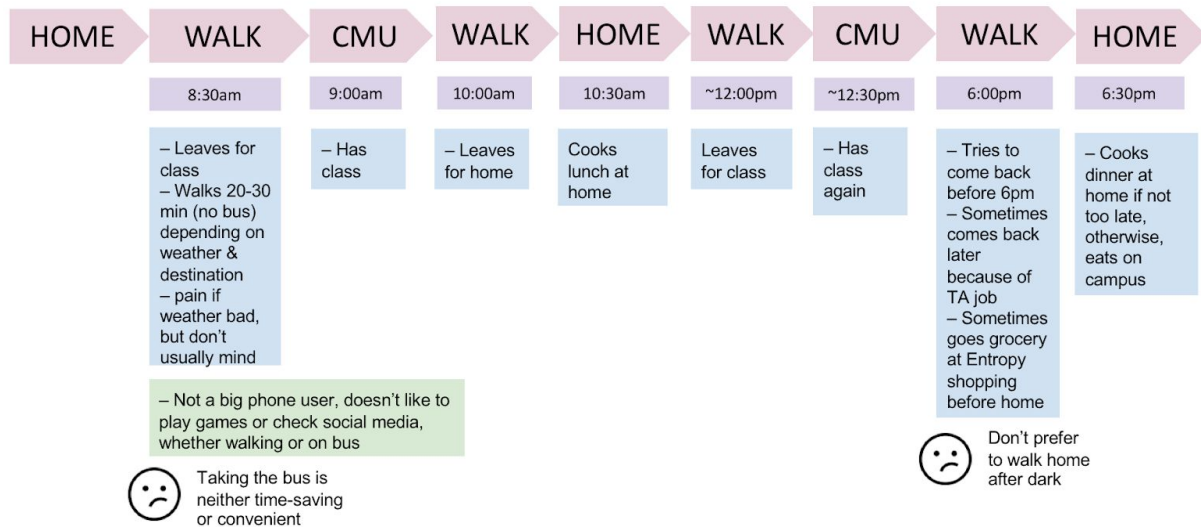
Name: Joy Mao		
Role: Grad Student, 1st year PHD student, US Citizen, 26		
User: U2		
User Code	Action Number	Action
U2	1	born and raise in Seattle
U2	2	Lives in Shady Side
U2	3	Usually Walks to school
U2	4	20-30 min walk
U2	5	covered not by bus, shuttle, or escort
U2	6	chose to live here because of sister's corporate living (religious)
U2	7	place is very safe and quiet
U2	8	\$50 a month for utility, church pays them
U2	9	walking is not a problem
U2	10	however, if bad weather or she is late, then it is a hassle
U2	11	if weather is good, it only takes 20min to gates
U2	12	walking to entropy, mm is 30 min
U2	13	grocery shopping friday afternoon
U2	14	leaves at 8:30am weekdays
U2	15	come back home at 10:30am
U2	16	leaves again afternoon for class at 12:30pm
U2	17	tries to comes back before 6pm
U2	18	sometimes she comes back bit later because of her job (she is a TA)
U2	19	she never stops by to places on her way to school
U2	20	always in a hurry to go to class
U2	21	on her way back home, she sometimes does grocerys hopping
U2	22	grocery shopping on campus saves her time
U2	23	usually eats lunch at home
U2	24	she cooks
U2	25	sometimes eats dinner at home, sometimes doesn't
U2	26	goes to campus on sunday for church meeting
U2	27	saturday sometimes walk to giant eagle

U2	28	likes trader joes better but it is farther
U2	29	if she has more time, then she goes to giant eagle or aldi (this happens rarely)
U2	30	last time she rode the bus was thursday afternoon
U2	31	takes bus to go to craig st (uses rarely)
U2	32	walk 5 min
U2	33	then transfer busses to go to craig
U2	34	busses come every 30 min
U2	35	she uses the app called transit
U2	36	she likes to app, it is accurate
U2	37	last time uses the bus to go to craig st
U2	38	bus was pretty empty
U2	39	she had a seat
U2	40	then she walked 5min to her destination
U2	41	when traveling somewhere far, always checks transit/google maps to make sure she is not missing her stuff
U2	42	have used lyft only twice
U2	43	took lyft to the bus stop, to get to airport
U2	44	bus is not convenient for her
U2	45	perferred mode of transportation: walking
U2	46	taking the bus is neither time saving or convenient
U2	47	she doesn't mind it too much
U2	48	never heard of omu shuttle app
U2	49	she doesn't like how google map is not realtime, accurate
U2	50	got schedule of 28x when using it from online website (a pdf)
U2	51	doesn't worry about walking in night because it is a safe area
U2	52	would like it if there was more direct bus acess
U2	53	lives so close but no service to the location

U2: Sequence Model



U2: Day-in-the-life Diagram



U3: Interview Notes

Role: User (undergraduate student)

Profile: sophomore majored in decision science, 20, female, lives in Skyview district

- U3-1 Skyview students are very dependent on Port Authority buses because it's far from campus
- U3-2 Uses CMU bus at night
- U3-3 Uses Uber to hang out with friends
- U3-4 Wakes up an hour before the class
- U3-5 Class starts at 10:30am on Mon/Wed/Fri and 9am on Tue/Thur
- U3-6 Takes 30 minutes to commute (10 min walk plus 20 min bus ride)
- U3-7 On MWF, wakes up at 9:30 and visits La Prima at 10:15
- U3-8 On Tue/Thur wakes up at 8, leaves home at 8:30, and grabs coffee from Exchange
- U3-9 Punctual and don't like being late to class, so always carefully checks bus times
- U3-10 On weekends, there are fewer Port Authority buses and inconvenient
- U3-11 Prefers Port Authority app than Google Map since it is more reliable
- U3-12 She checks Port Authority app before going outside
- U3-13 On MWF, returns to home by 6-7pm

- U3-14 On Tue, she returns to home during the afternoon brake hours and come back at night
- U3-15 Mostly not on campus after 9pm
- U3-16 Dinner at 6-8pm
- U3-17 Buys food at grocery for dinner
- U3-18 For lunch, uses UC at 1:30pm on MWF, at 3pm on TT
- U3-19 Her snack is coffee at La Prima before class
- U3-20 Breakfast is banana from home
- U3-21 Spends time at home on weekends because Port Authority is not reliable
- U3-22 Sometimes visits to Hunt Library to study
- U3-23 Relaxed on weekends
- U3-24 Prefers Trader Joes but far from home (uses Uber on a way home)
- U3-25 CMU shuttle is not always on time
- U3-26 Does not use AndyBuses app
- U3-27 Takes bus to dinner or walk sometimes
- U3-28 Is not aware of PA cuts
- U3-29 Walks to school only if bus is late
- U3-30 While waiting for bus, she plays games and checks social network, but not during winter because her hands get cold
- U4-31 Meets U3 inside bus
- U3-32 Hates when someone sits next to her when there are a lot of seats available
- U3-33 Sometimes bus does not stop unless she waives
- U3-34 Smells bad inside bus
- U3-35 Never sits on priority seat
- U3-36 Likes public bus because she does not need to interact socially with others
- U3-37 Aware of transportation fee. It's helpful because she uses it 4-5 times a day.
- U3-38 Aware of UPitt bus as well but does not know about its bus routine
- U3-39 Takes Uber to airport because 28X does not have space for luggage

- U3-1 Insight: Considerable demand of transportation for undergrads as well
- U3-9 Insight: Reliability of bus app (especially GPS location) is critical especially in the mornings
- U3-11 Insight: Google Map is also not dependent since it does not include real-time tracking

- U3-24 Insight: CMU transportation should take the user's lifestyle into consideration

U3: Sequence Flow

U3 Sequence Model

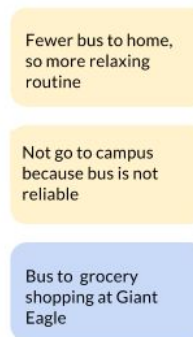
Weekday M/W/F



Weekday Th/Thur



Weekends



Do not have bike b/c snow

When on bus: hate people sitting next to me if other seats are available

Prefer bus than Uber b/c no need to social interact w/ people

Get a lot of from transportation fee paid to CMU b/c taking bus 4~5 times per week

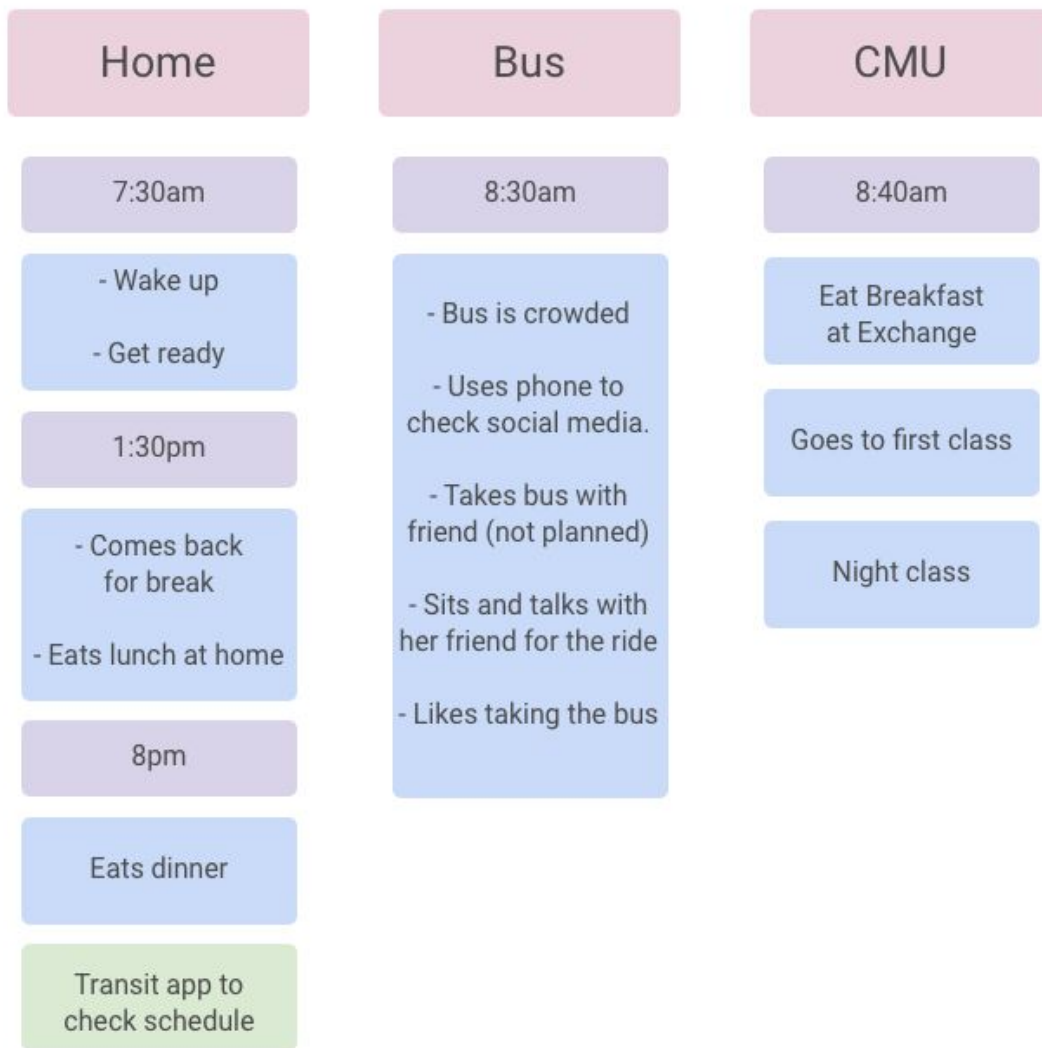
Usually take Uber to the airport b/c 28X is too crowded & no space for luggages

Once missed a bus b/c playing on the phone. Had to wait 10 more minutes for the next bus

Do not aware of Port Authority APP

Do not know how to track CMU & U Pitt shuttles

U3: Day-in-the-life Diagram



S2: Interview Notes

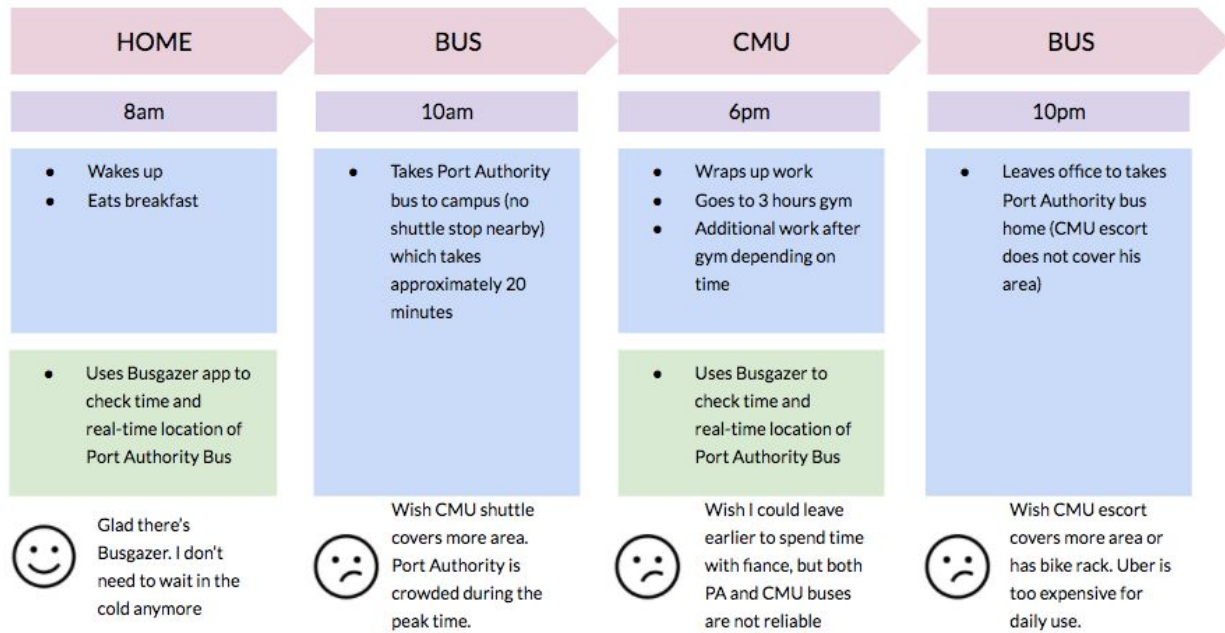
Name: S2 Travis Carless		
Role: PHD student, GSA president		
Name: S3		
Role:		
User Code	Action Number	Action
S2	1	From Bronx, NY
	2	wake up between 8 to 10 am
	3	get on the bus between 9:30 am to noon
	4	take 61 bus from edwood regends
	5	bus not very reliable b/c not match up w/ schedule
	6	waiting for the bus is cold ~20 min
	7	b/c not know when it comes - detrimental to educational experience
	8	use app Bus Gizer -- by Port Authority -- love it
	9	his bus trip is 15-25 minutes
	10	most people are 10 minutes away or less from the bus
	11	really knows a lot about forbes and murray
	12	believes there is too much crowding at that stop
	13	complains about getting his sneakers scuffed, getting his feet stepped on, carrying his gym bag and book bag
	14	leaves campus 10pm-1am to avoid crowding
	15	remembers talking to a colleague about waiting for a bus
	16	all four buses past them at the given stop
	17	overcrowding is a problem
	18	doesn't take uber
	19	uber prices always go up because of demand
	20	always think about his salary when he thinks about uber
	21	the cmu escort service doesn't go to his place
	22	grad students are living further away
	23	point breeze, wilkinsburg
	24	shuttle doesn't even go to squirrel hill
	25	but the escort does
	26	bad shuttle experience deter people from taking it again
	27	Initially buses were ran by students and driven by students
	28	organized by cmu police
	29	have been driver availability issues
	30	they have to rest every few hours
	31	robert orferman said they tried a pilot service
	32	times have changed
	33	some demand
	34	Finish day between 6 and 7
	35	Work out at the gym for 3 hours, come back to office to work
	36	Realized sweet spot was any time after 10
	37	cmu should run another shuttle during peak times
	38	no shuttles to where he lives
	39	wants another bus going to squirrel hill
	40	has data on ridership annually
	41	61A/B/C/D get full
	42	but clear out when it gets to forbes & murray
	43	now have the ability to get the data
	44	nice to go home earlier
	45	because if later then 5pm will take >= 1 hour
	46	b/c traffic and bus crowding
	47	61B to and pass forbes & murray
	48	while the crowding happens the same time -- sucks for him
	49	drive on weekends
	50	no drive on weekdays for crowded parking
	51	drive go to friend's house & grocery shopping
	52	needs to take 2 buses to trader joes or whole foods
	53	uses google maps on weekends when have no idea where to go
	54	use app Bus Gizer to get accurate time

	55	9-11pm: post workout "lunch" -- small meal
	56	get home -> take shower -> eat dinner
	57	go to bed around 2-3pm
	58	8:30am bus is usually on time & ~20 min
	59	feel very strong about bus annoiness
	60	life as a GSA presidents
	61	some changes has been done, but more long term efforts needed
	62	GSA related tasks: leagal services; landlords; no turn heat on;
	63	personally disliike uber / lyft b/c pricy and safety
	64	think escort service covers the duty of uber / lyft for cmu students
	65	

S2: Sequence Flow



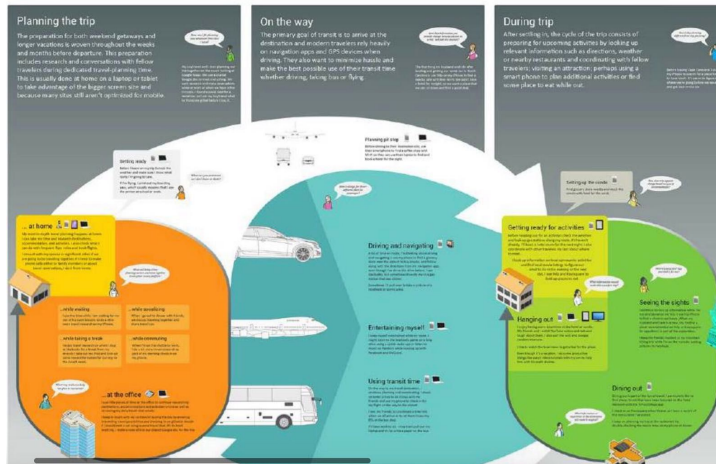
S2: Day-in-the-life Diagram



Additional Sources of Help

- We found that these examples of the models in the reading particularly helpful

Unstoppable Momentum of Life: Going on a trip



U06 Sequence 1: Plan family trip

1. Trigger: Decided to give wife a family trip for her birthday
2. Ask wife about going somewhere new (agree with wife to find a new destination)
3. Open home/work desktop
4. Research a place using Google Maps
5. Start search at Rockaway (their usual place)
6. Intent: Find hotel, places of interest
7. See a place that's a condo, not a hotel
8. Decide to search for condos in Rockaway
9. Find a place that looks good
10. Email link to wife
11. BD: Link didn't work and had to send again
12. Once finally received, wife confirms that it looks good
13. Discuss more in email and text
14. Have face to face discussion to commit to the place
15. Intent: Don't commit until we're sure we agree
16. Decide the website is not trustworthy
17. Call the condo rental place
18. Book the condo
19. Night before the trip:
20. Research travel route in Google Maps
21. Intent: See if anything new to see or a new way to go
22. Decide to take their regular route
23. Print directions

- Holtzblatt Video: Interpreting the Data
- Studied customer journey diagram and interaction design process which describe similar information to day-in-the-life diagram
 - [Harvard Business Review](#)
- [About Face: The Essentials of Interaction Design](#) (book)
- <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/contextual-design>