UX Research and Design Portfolio

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About me

- I am a **UX Researcher and Designer** with an academic background in Hospitality and Tourism Management, Consumer Psychology, and Computer Graphic Technology.

- Asking good questions is one of my strongest skills, reflecting my curiosity, strong critical thinking skills and understanding of people.

- Currently, I am a third-year **doctoral student** at Purdue University. My research investigates the people who use products/services as well as their holistic experience of products/services.

- My approach is multi-method: I'm as comfortable with linear mixed-effects models as in-depth interviews. I always choose the right **qualitative** or **quantitative** tool for the research question at hand.

Case 1:

Grocery Shopping
--- Improve Grocery Shopping Experience by a Lightning System

Project Overview

- The project focused on improving grocery shopping experience.

- The research had two goals:
  - **Exploration:** Better understand customers' desires and painpoints of shopping groceries.

  - **Solutions:** How to solve the overcrowding problem in grocery stores? How to solve the difficulty in finding employees easily?
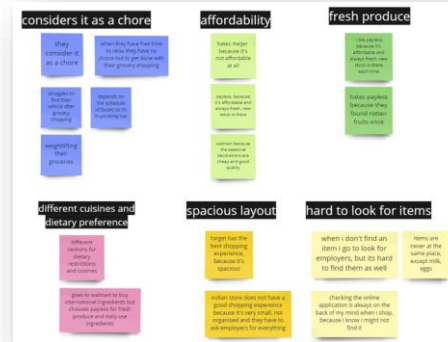
RESEARCH SETUP

Contextual Inquiry

- We conducted observations at Walmart for 2 hours and took notes about consumers' interactions with goods, employee, the environment and how they deal with issues.

Interviews

- In a one-on-one interview format, we in total invited 4 customers to learn about their shopping experience, expectations, habits, and painpoints, and created affinity diagram to organize the data.

Design

- We designed and iterated a lightning system for a grocery store.

User testing/bodystorming

- We simulated a store for participants and tested the design of a lightning system by bodystorming.

Interviews

- As part of the interviews, we asked customers to describe their experience of "shopping for groceries" as a story.

- As they told their story, each step was written down. This customer journey was the final result.

- **CUSTOMER JOURNEY MAP: "shopping for groceries**

Scope	A user journey map for users who are going to buy groceries				
Phases	Creating the shopping list	Check the app	Head to the store	Find items	Check-Out
User tasks and activities	• look up the pantry and fridge • Ask flatmates/roommates what they need • planning meal prep	• Go to the app • Look for the map which shows the live updates	• Get to mode of transportation • Park vehicle/ enter into the store • check the bus schedule • go to the bus stop in advance	• Walk around the store • Compare prices • Take a cart • Get items on shopping list	• Look for empty lanes • Choose checkout mode: self checkout or Checkout with employee • Put items from the cart to the check out station • Put them in the plastic carry bags, if opted for self check out

- **CUSTOMER JOURNEY MAP: "shopping for groceries**

| Phases	Creating the shopping list	Check the app	Head to the store	Find items	Check-Out
Pain Points	• If their roommates are not with them they might have to wait for them, or wait for their reply • They forget to put item on their shopping list	• hard to locate	• irregular bus timings • not enough fuel in vehicle	• sign-boards and directions might mislead • no employees around to help • employees don't help • disorganized items	• difficult to put items on the cashier counter if they have a back issue • long queues, overcrowding • difficult to find parked vehicle • park the cart at a place and wait for the bus • carry the bags and check into the bus, pay if requires, or show the resident id or student id if required

- **CUSTOMER JOURNEY MAP: "shopping for groceries**

Phases	Creating the shopping list	Check the app	Head to the store	Find items	Check-Out
Opportunities	• handy shopping list	• a good logo to make it easier to locate	• to check in advance for a particular bus time • booking uber	• to have kiosks which tell them the item locations and give a map of store • employees at regular intervals for helping customers	• more staff, each check out counter can have one employee to also prevent overcrowding
Touchpoint	• a to-do list on app	• mobile homescreen • notifications at a specific time (customisable), so that users' could click it and get started with checking the app	• vehicle for commute	• mobile app for looking up item • interaction with employees • signboards	• check out counters • mobile app for scan and go

User testing/Bodystorming

- As part of the bodystorming, we asked participants to tell us their feelings under a lightning environment with different colors.
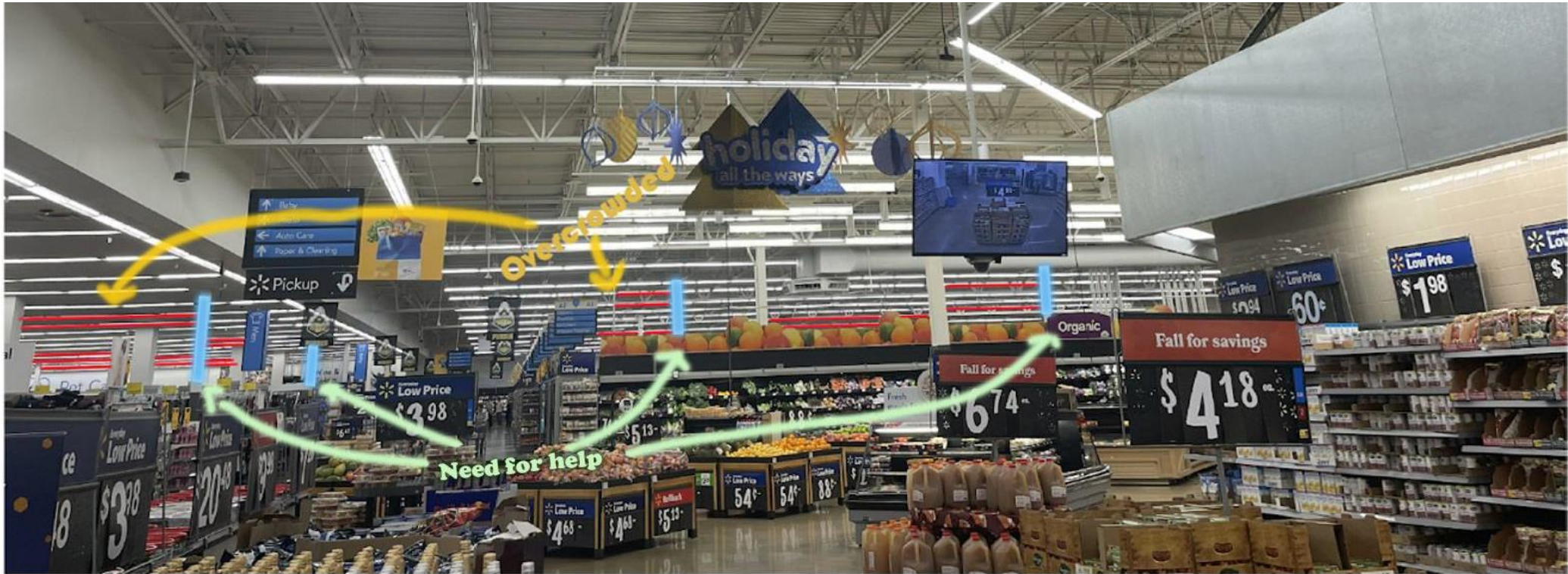
Key Insights

1. **To solve overcrowding**, our design is that when an area gets crowded, a red light on the ceiling will be on. According to our user testing, this design helps customers 1) notice which areas are crowded now and better decide which areas they want to go to first, and 2) shop quickly and make room for other incoming customers.

2. **To solve difficulty in finding employees for help**, our design is that when customers need help in one area, customers can turn on a switch and a light for that area will turn blue. Using blue is because 1) participants prefer blue light, and 2) blue light has a function of soothing the customers when they are waiting for employees for help, according to our user testing.

3. Solutions are demonstrated in the picture above.

Case 2:
City Walkability
--- Ways to Nudge People to Walk More

Project Overview

- Throughout this project, I worked with a handful of great professors from the areas of Experience Design, Human Factors, and Sustainable Development: Dr. Xinran Lehto, Dr. Mark Lehto, Dr. Jonathan Day. They are also co-authors of the article (*in press*) of this research.

- This research focuses on:
  - **Exploration:** How to improve the public health? How to encourage people to walk more?
  - **Solutions:** Colored Sidewalks; Social Norms; Priming Effects
  - **Validation:** Do our solutions work? Our solutions were validated with statistics and experiments.

Research Process

- This was a quite long and complex project; here's a very high-level overview of what the process looked like.

Learn

- **Meetings with experts** in urban walkable design
- **Literature review,** including health industry reports, validated research results, academic journals and book chapters, personal blogs, etc.

Make

- **Hypotheses**
- **Prototypes**
- **Experimental design**
- **Survey creation**

Test

- **Pilot study**
- **Distributed questionnaires**
  - Amazon Mechanical Turk
  - 2,160 participants
- **Data analysis**
  - *Stata* statistical software
  - *t*-test, ANCOVA & ANOVA, Linear Regression Model, etc.

Coming soon…