

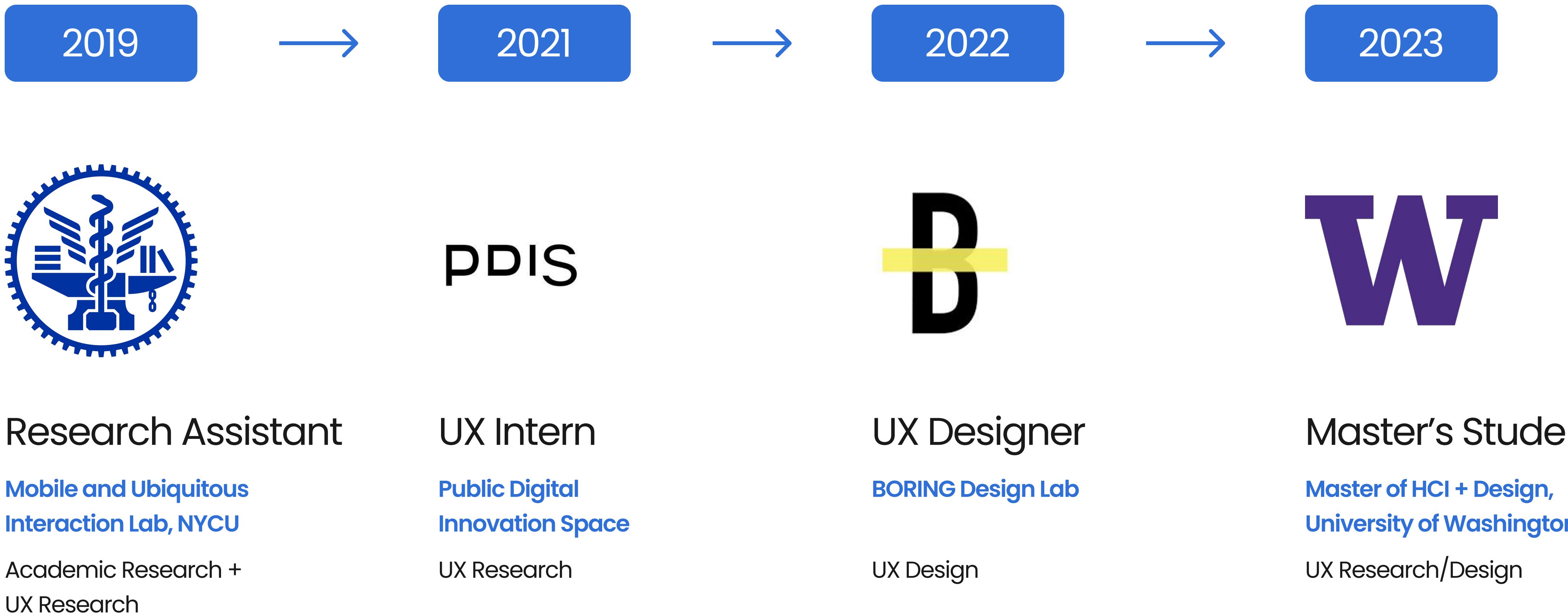
# UX Research Portfolio

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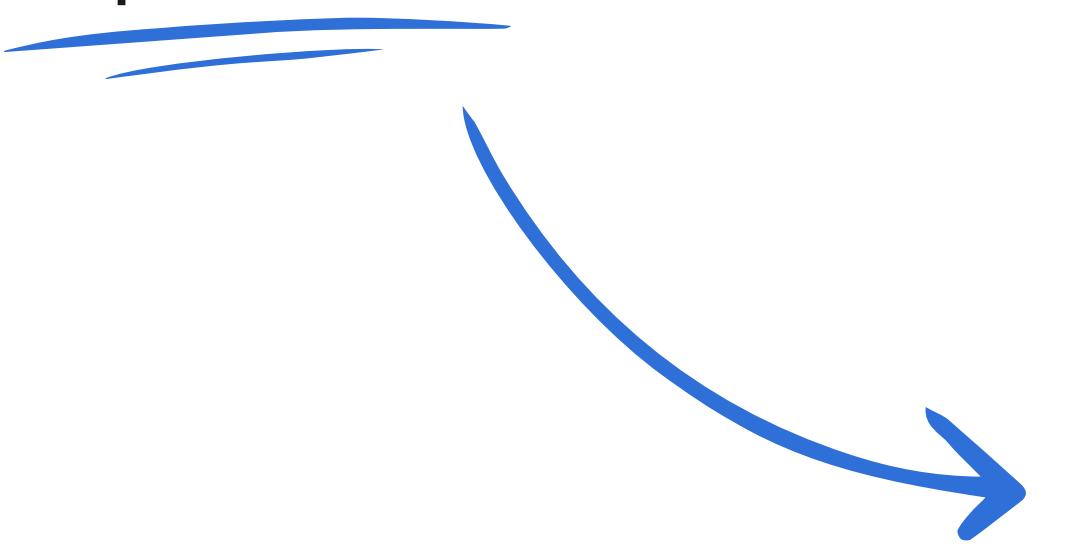
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# Background



# Who am I

- I am a **researcher** who is also good at **design** and **prototyping**
- I believe design should be driven by **research** and **theory**
- I drink coffee and take photos



# Case Studies

1. Redesigning Taipei City Public Daycare Application Portal
2. Mixed-method Research of Chatbot Guidance
3. Usability Testing of Canvas Mobile

# Redesigning Taipei City Public Daycare Application Portal

## Client

Taipei City Government

## Timeline

July - August 2021

## My Role

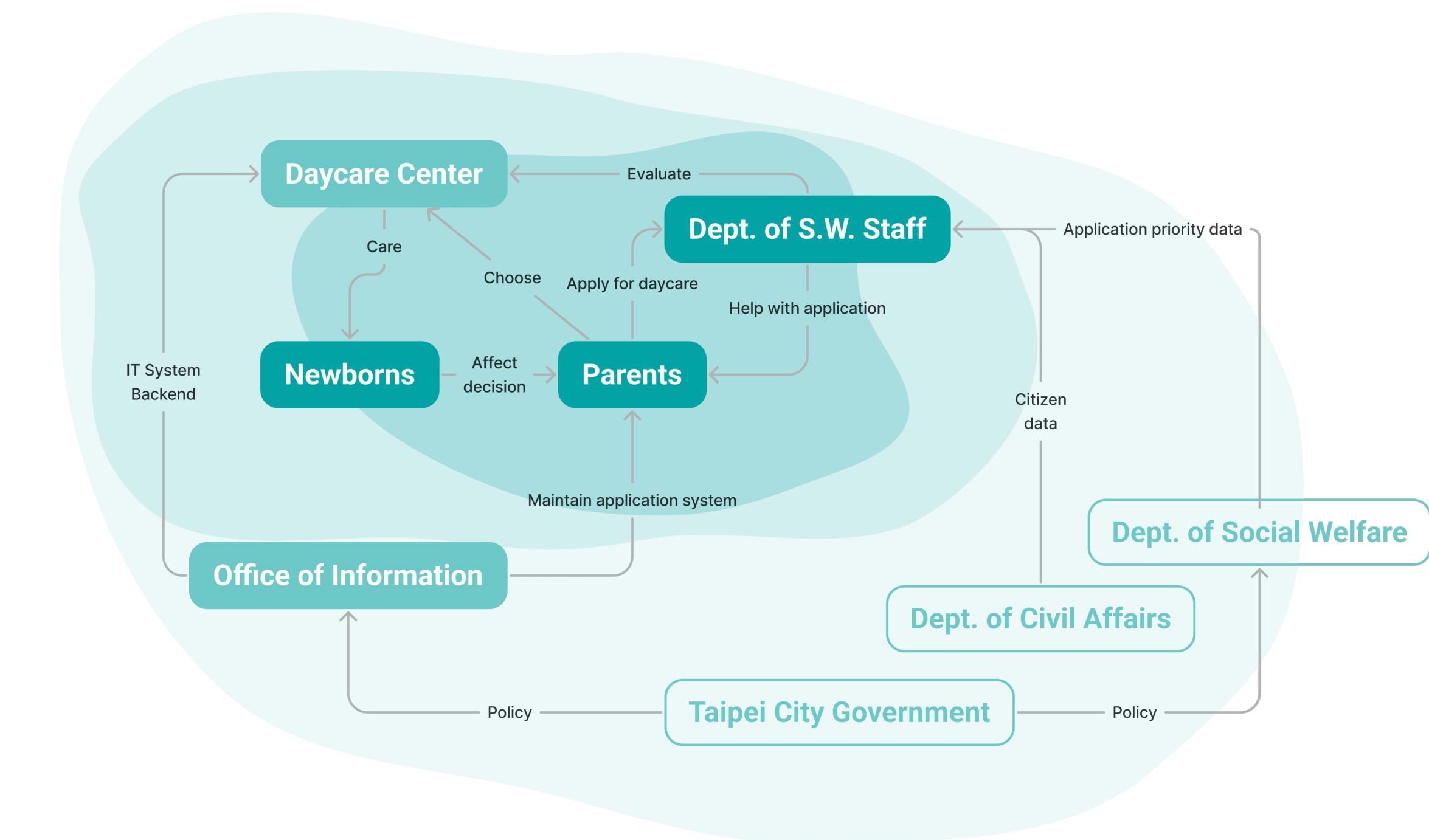
Lead User Researcher / UX Designer

### Overview

Taipei City was facing an increasing number of users who could not successfully finish the public daycare application process.

I led the initial research progress, conducted interviews, and usability testing( $n=5$ ) to help the team identify the problem in the system.

I also took the lead in transforming research insights into new information architecture, conducted concept evaluation( $n=5$ ), and RITE testing( $n=5$ ) to validate the solution.



# Redesigning Taipei City Public Daycare Application Portal

## Research Goal

Locate the pain points and breakdown of the current system. Evaluate the redesigned system.

### Initial Stage

I helped the team scope down the problem space.

Methods:

**Heuristic Evaluation**  
**Stakeholder Map**  
**Stakeholder Interview(n=3)**

### Generative Research

I conducted research and synthesized data to inform design.

Methods:

**User Interview(n=5)**  
**Usability Testing(n=5)**  
**Journey Mapping**

### Evaluative & Iteration

I validated the concept and evaluated the new design to facilitate iteration.

Methods:

**Lo-Fi Prototyping**  
**Concept Evaluation(n=5)**  
**RITE Testing(n=5)**  
**SUS Survey**

# Redesigning Taipei City Public Daycare Application Portal

## Insights

In the generative stage, we found the following insights (reworded for length):

- 1. Participants have limited attention span and energy. They are under high pressure**
- 2. Daycare regulation is difficult to comprehend, increasing cognitive load**
- 3. Participants have to jump between systems for different steps in the process**

Evaluative research showed major problems were addressed and participants generally showed positive attitude toward the redesigned system.

## Impact

The redesigned system received a **System Usability Scale score of 85 (at 96 percentile)**, a huge improvement from the original 58 (at 25 percentile).

The **linear user journey**, a design feature based heavily on the generative research findings, **was well received by the participants**.

The outcome of this project was presented to Audrey Tang, the Digital Minister of Taiwan. Taipei City started to implement the redesign in Nov. 2023.

# Mixed-method Research of Chatbot Guidance

## Project Type

Academic Research

## Timeline

April - September 2021

## My Role

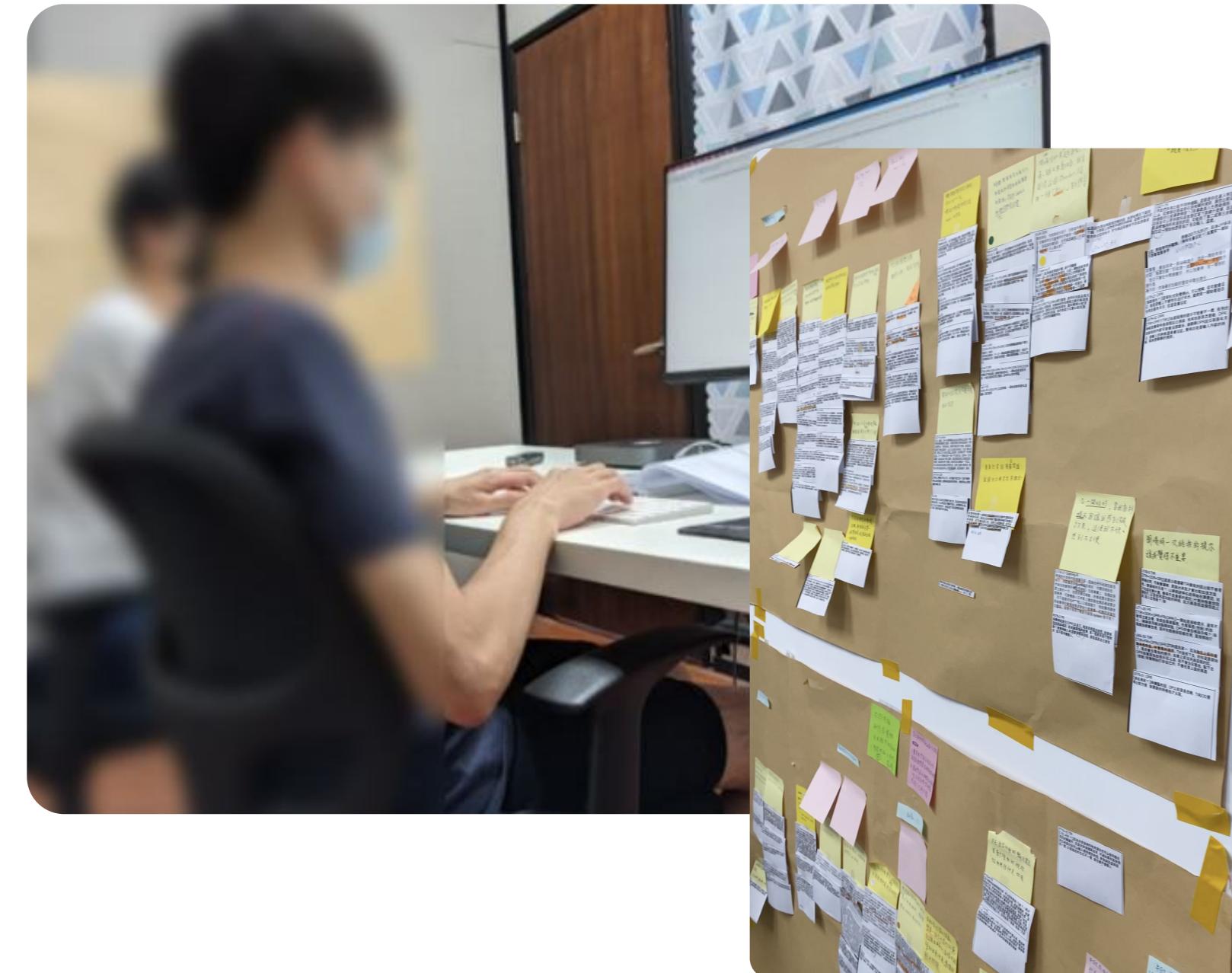
Academic Researcher / Paper Co-author

### Overview

This mixed-methods study explored different types of chatbot guidance design and the timing of the guidance to enhance user experience and efficiency for task-oriented chatbots.

My main contribution to this study included the coding of qualitative data, thematic analysis, and translating findings into academic writing.

This study was published on CHI '22 and received an honorable mention for the Best Paper Award.



# Mixed-method Research of Chatbot Guidance

## Research Goal

Investigate the performance of different chatbot guidance design and users' subjective experience.

## Approach

I analyzed and synthesized the qualitative experiment data. We coded all the qualitative data and conducted thematic analysis to look for patterns.

I wrote the qualitative findings section of the paper with additional literature review to support insights. I combined findings from the qualitative and quantitative analysis and translated them into design recommendation.

## Insights

Selected insights (reworded for length):

- 1. Examples warranted a good start, whereas rules promoted learning.**
- 2. Presenting examples at onboarding was too early that they became irrelevant.**
- 3. The choices of both guidance type and timing depends on the chatbot's application and the purpose of the guidance.**

## Impact

This study was published on CHI '22 and received an honorable mention for the Best Paper Award.

Given the focus on user behavior and their subjective experience, insights and recommendations from this study are still highly relevant when designing conversational AI.

# Usability Testing of Canvas Mobile

## Project Type

Course Project

## Timeline

February - March 2024

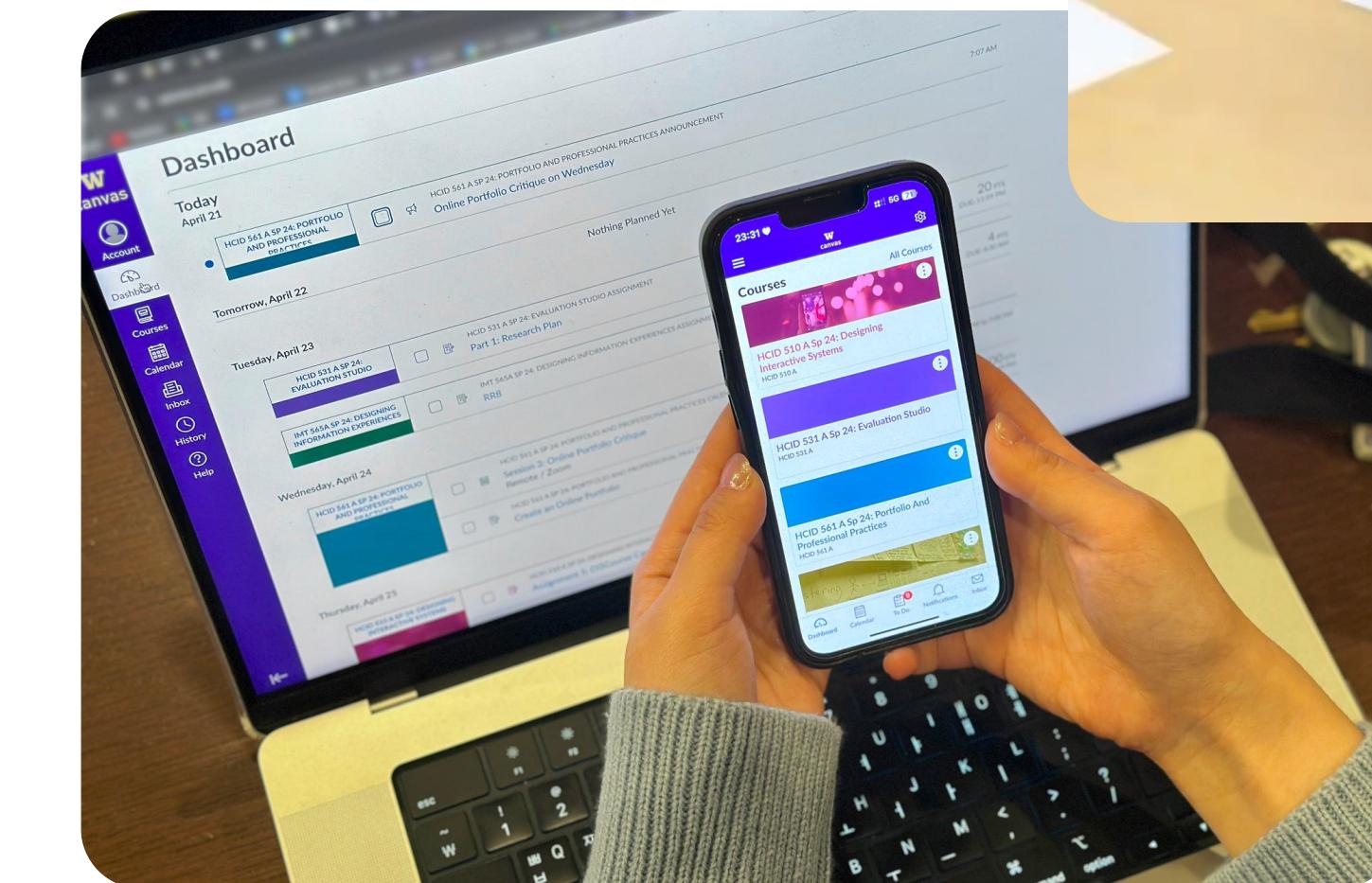
## My Role

UX Researcher

### Overview

Canvas is the learning management system (LMS) adopted by University of Washington. We wanted to investigate pain points student users face when using the mobile version to perform common tasks.

As a more experienced researcher on the team, my contribution included helping the team conduct heuristic evaluation and task analysis to form an initial understanding of the product and setting up the structure for the usability testing( $n=5$ ), data analysis, and report.



# Usability Testing of Canvas Mobile

## Research Goals

Evaluate if users can successfully and efficiently perform tasks. Identify key usability issues in the system.

## Approach

We used task analysis to identify key paths in the system and conducted a heuristic evaluation to uncover the obvious issues.

We then conducted moderated usability testing ( $n=5$ ). Each session included pre- and post-test questions, 7 tasks (3 scenarios) for testing, and a SUS evaluation. Think aloud methods were used to collect qualitative data.

## Findings

Selected findings(reworded for length):

- 1. Participants can achieve their goals via different paths**
- 2. Difficult to discover how to filter courses on the Dashboard**
- 3. Multiple settings menus confuse participants**
- 4. Valuable features in Canvas Mobile are hidden**

## Potential Impact

We delivered a usability report of Canvas Mobile consists of a list of usability issues, source of error, and a prioritized list of recommendations, which is marked with severity rating and organized into 3 different levels: UI component, feature, and system level.

The prioritized list enables the product team to address the most severe issues with easy fix first, improving the usability of Canvas Mobile efficiently.

# Thank you!

If you have any questions, please contact me:

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