

ThespAI glasses project overview

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Introduction

Theater is an immersive art form, but not everyone can fully enjoy it. Language barriers, cultural references, and difficulties in following dialogue can make live performances less accessible. Our project focuses on addressing these challenges by creating ThespAI glasses, a smart wearable device designed to augment the theater experience with subtitles, translations, and context-specific assistance.

Context

This project was completed as part of the University of Washington's HCDE 518: User-Centered Design course in Autumn 2024. The goal was to explore inclusive design principles and create a solution that addresses real accessibility barriers for theater audiences.

Team members

- Abhay Sawhney
- Oey Chang
- Zainab Tanveer
- Olivia Edgington

Artifacts and process

1. Design requirements

What it is: A detailed document outlining the project's design goals and the functional, physical, and accessibility-related requirements for ThespAI glasses.

Why we created it: To ensure clarity and alignment among the team, focusing on key features like live translations, alt text, and user-friendly interactions.

Relation to UX process: This artifact grounded the project by defining goals derived from user research, serving as a blueprint for the subsequent design stages.

Next steps: It informed the creation of prototypes and user flows.

2. Ideation and sketching

What it is: Early sketches and brainstorming sessions that explored potential features and interaction models.

Why we created it: To visualize ideas and narrow down the most viable features for inclusion in the prototype.

Relation to UX process: These sketches bridged the gap between initial concepts and functional prototypes, allowing us to identify practical solutions.

Next steps: The insights from this stage directly shaped the first iteration of our prototype.

3. Prototype evaluation

What it is: User testing and feedback sessions with an early version of ThespAI glasses, focusing on interactions, layout, and usability.

Why we created it: To validate our design decisions and identify pain points or opportunities for improvement.

Relation to UX process: Evaluation revealed critical usability insights, such as the need for intuitive gestures and minimal on-screen clutter.

Next steps: These findings led to major design changes, such as gesture-based controls and simplified interfaces.

4. Design Spec

What it is: Product design spec, ready to hand off to an engineering team.

Why we created it: To aggregate all the relevant information needed to build this product into a single document.

Relation to UX process: The design spec encapsulates all the learnings from the UX process and distills them into their most concise and actionable elements.

Next steps: Find funding and a partner to turn our vision into a reality!

Reflections

Our approach emphasized user-centered design by incorporating direct user feedback and iterating based on their needs. From defining design requirements to refining our prototype, every stage was informed by the goal of enhancing the theater experience for diverse audiences.

Working on this product from end-to-end was a great learning experience. I will definitely take a lot of insights from this into my work as a Product Manager in the tech industry!