

## Introduction

# BACKGROUND

iReader is a TOP3 online reading platform in China where young adults can read novels and non-fiction books, with 2 billion active users per month. Reading and listening are core features for our users.

# PROJECT SCOPE

Listening includes: **TTS(Text to Speech) with machine-generated voices**; audio books with authentic human voices. We want focus on TTS feature as it was outdated, 60% books contain TTS feature and company will purchase more TTS resources for books in the future. In order to bring TTS in contextual usage, we designed a new global player for TTS, unified the TTS and audio books' players, improved the TTS control page to support users multitasking without quitting TTS.

# TIMELINE

Project was conceptualized in May 2021, implemented in June 2021, launched in July 2021 on Android and iOS September 2021. As a lead designer, I collaborated with the product manager, engineers.

## Challenge

### TTS does not support multitasking

# PROBLEM

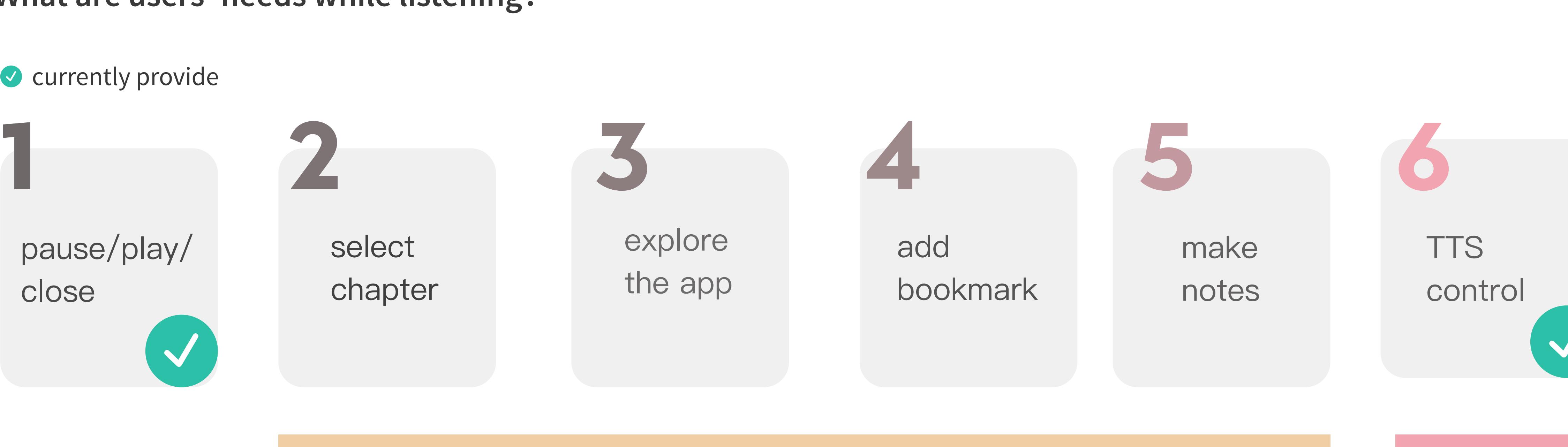
The feedback we received from our users was they could not perform various actions while using TTS and needed to constantly quit and restart. For example, adding bookmarks, choosing another chapter or opting to go back to the home page to browse other books.

"I wanted to add a bookmark for a page in my favorite chapter while using TTS, but I can not do that, I want to listen while reading, so that I can better control my progress" (feedback from our user Xinyu)

Users could not handle multiple tasks while using TTS

## Existing problems

### TTS flow



tab middle screen for settings

settings displayed, select tts

tts mode automatically play

tts control: speed, timer, voices, quit tts

return to read

disconnected

和我的心一样。我是否不知道爱儿子，先时你父亲在，我是否这样管他，难道我如何倒不如爱儿子？只是有个事故，如今我想，我已快五十岁的人，遇共到了他一个，他父亲的尊容，况且老太宝贵他的，若曾真了他，倘或再有个好，或者老太气坏了，那时上

How might we break the silo between TTS feature and reading tasks?

## Why improving TTS? Does it impact business goals?

Retention rate is the north star of our company, and our project goal was to improve the usage rate of TTS as well as the total time spent on TTS.

Our data showed that a 1/3 of the users have listened the books (either TTS or audio books), and those users have a higher retention rate than the users who only read. Therefore, we decided to prioritize the TTS project as it directly impact company business goals and has large spaces for improvements.

1 currently provide

2 select chapter

3 explore the app

4 add bookmark

5 make notes

6 TTS control

unreachable/high needs

only 2% low need

## Findings:

1. our data shows 98% users rarely adjust (most of users adjust the settings at the first time when using TTS) under TTS control.
2. user testing shows by tapping the screen, users intend to either quit TTS mode or change chapters/explore app/make notes.

Based on the data and the results of user testing, we concluded that allowing users to control TTS, or return to the previous page where they can change chapters, add bookmarks or explore app without quitting TTS are the actual needs.

# USER GOAL

Listening everywhere → business goal:improve the time spending

*Yu Gao, born in 2000, a young teenager who loves to read and listen to novels in iReader. He is passionate about life, is adventurous and loves exploring new knowledge and wants to listen while engaging in different activities and adventures.*

## Make listening more efficient

*Li Yang, born in 1997, loves interacting with books while listening, and wants to record her progress and also highlight her favorite passages in the books she has really loved.*

Then, I set 2 goals:

1. Help users to build strong connection with exploring while they listening
2. Provide related reading tasks while users using TTS

Based on the problems and direction, I came up with the following solution:

**Provide global audio player for TTS to help users to easily control their reading settings while listening and build strong connections between listening and reading with multitasking**

## DESIGN GOAL

Redesign the TTS feature to help users improve control over their reading needs regarding different scenarios

Design considerations:

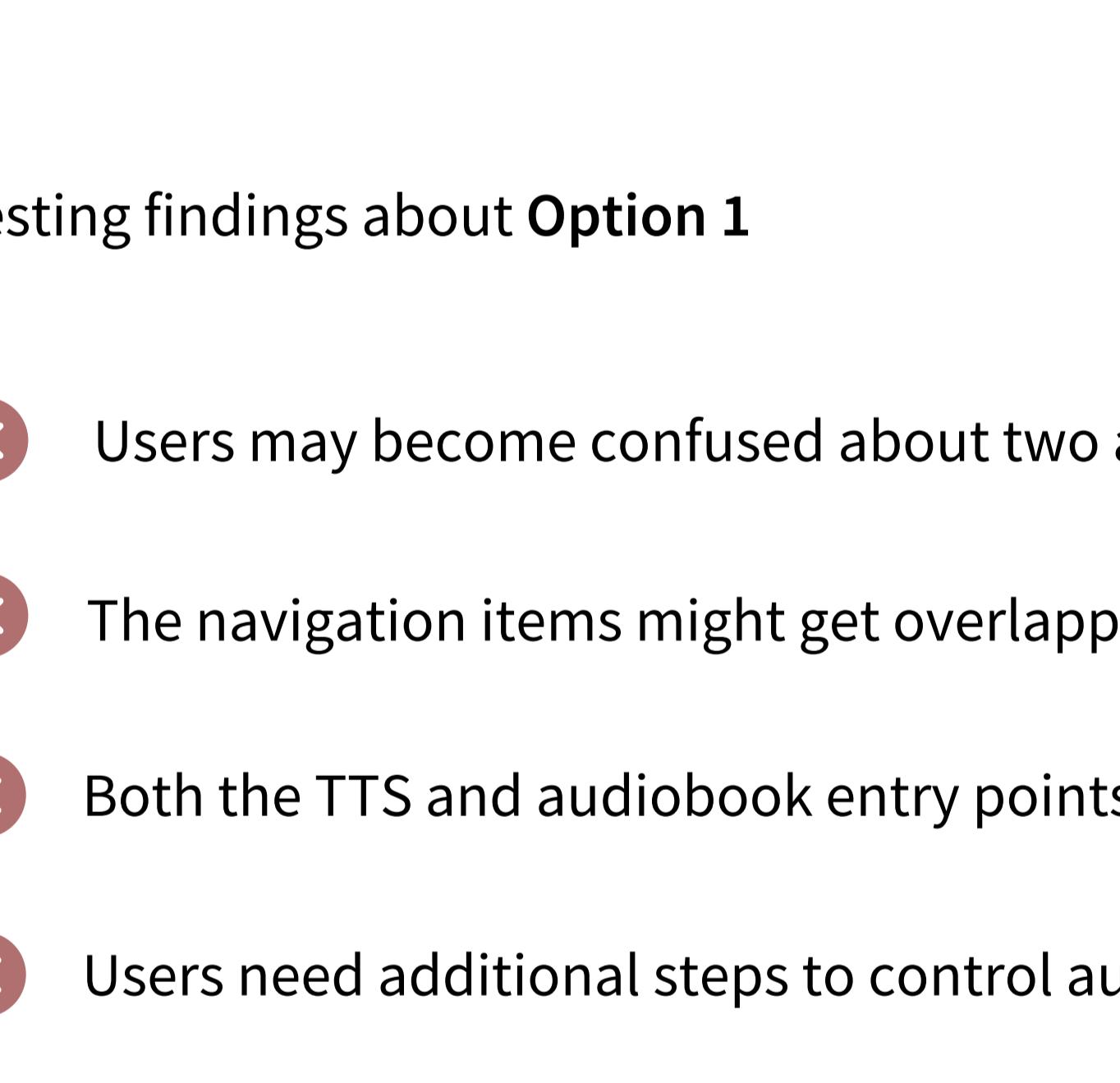
Engineering:

Changes are on native layer - needs more time for engineering development

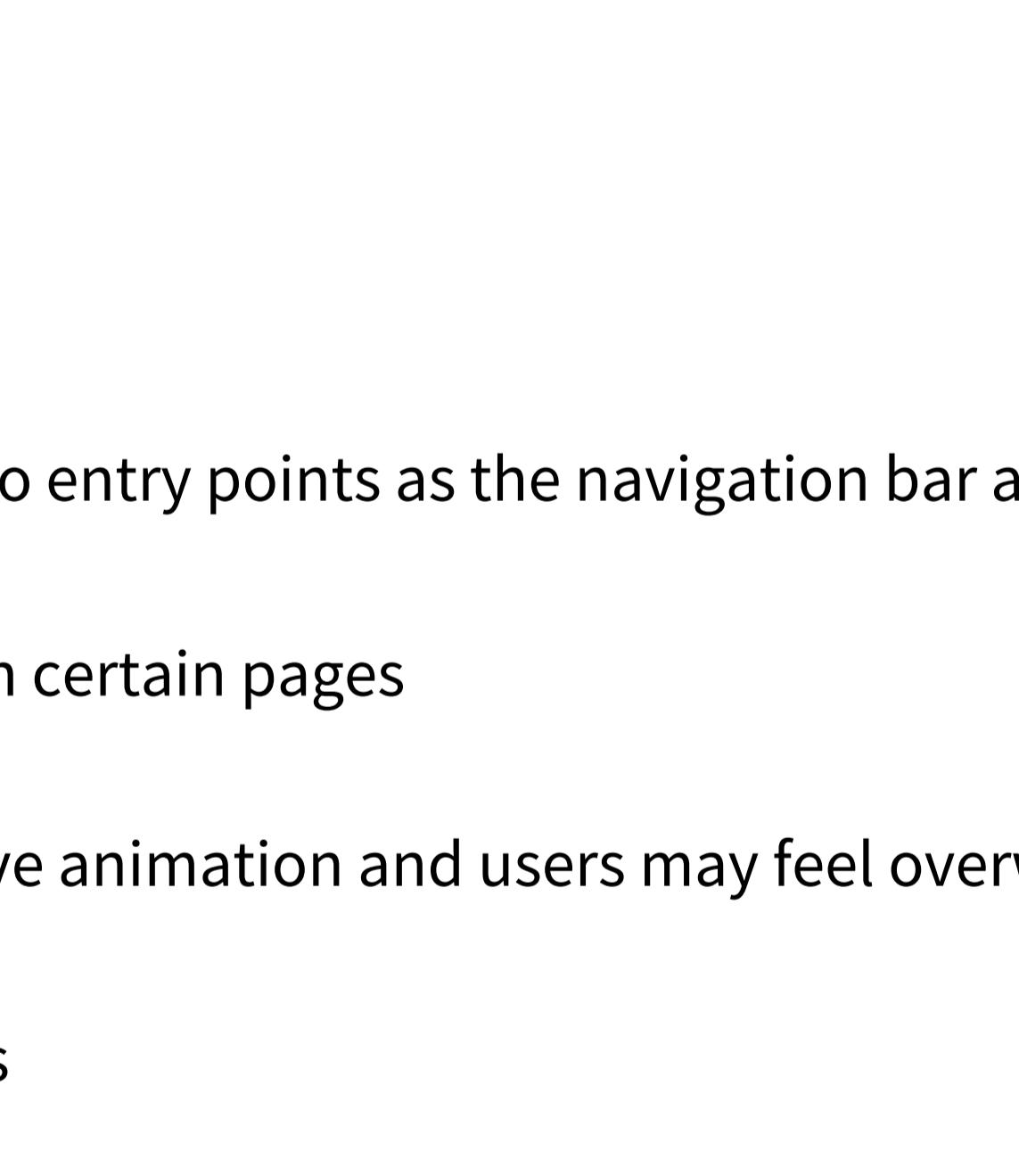
Existing audiobook global player:

1. If a new entry point is created for TTS, should we unify it with the existing entry point of audio book or keep them separate?
2. Users can only pause the audio but cannot close the audio player by themselves, and it will automatically close after 11 days
3. There is no available space in navigation bar
4. There are different control page for TTS and audiobook

Audiobook player entry point on navigation bar

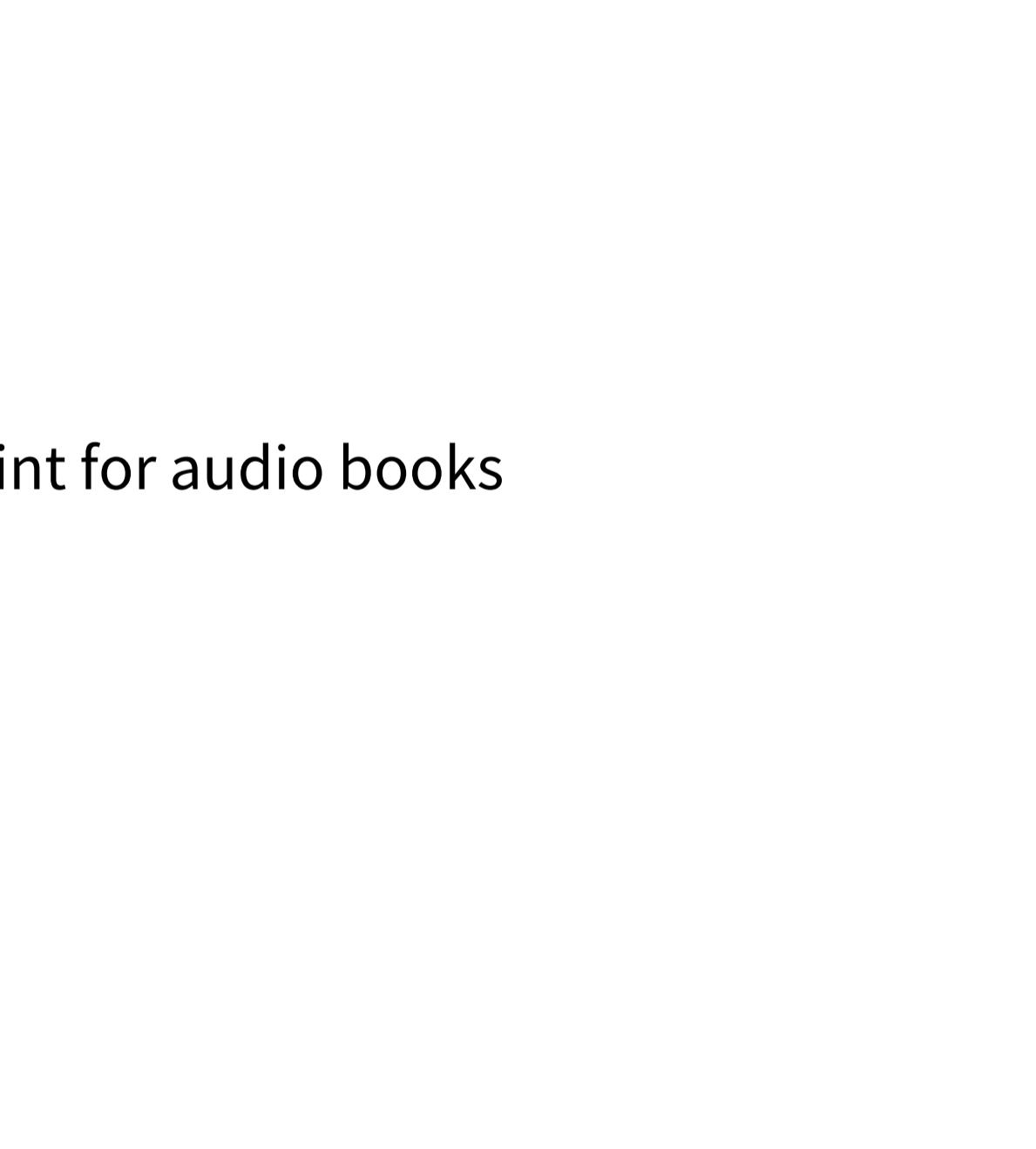


homepage



bookshelf

Audiobook player control



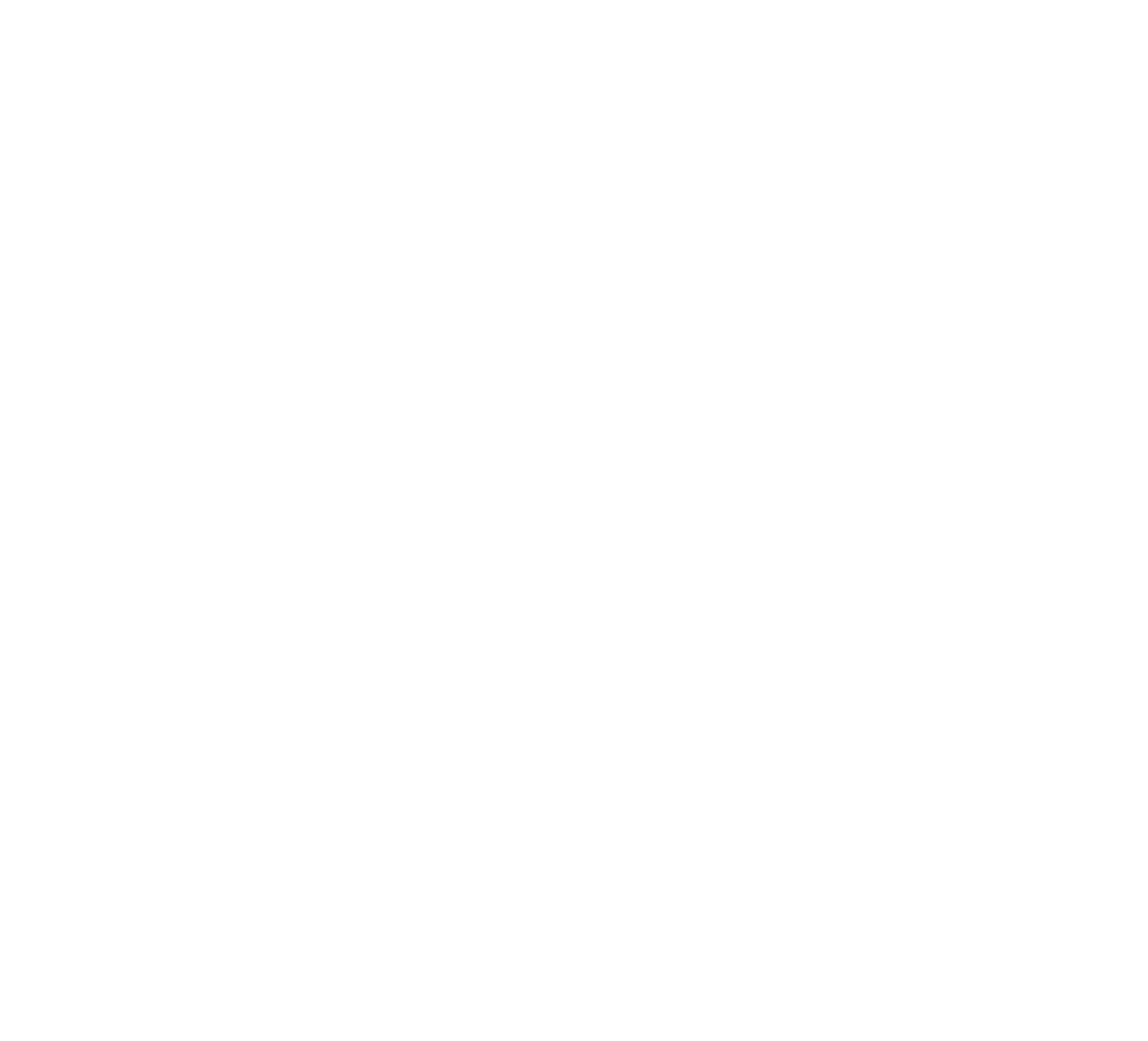
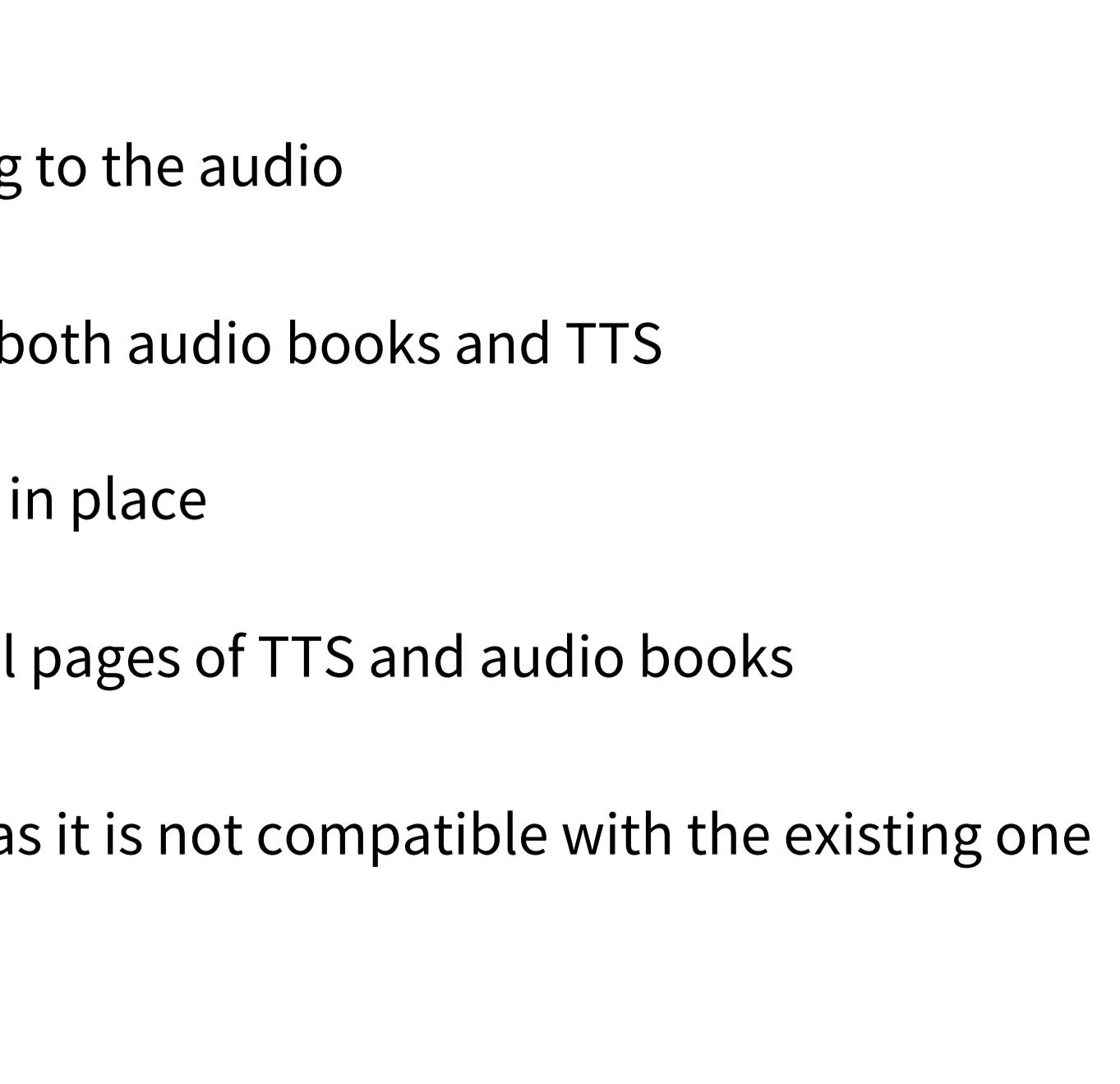
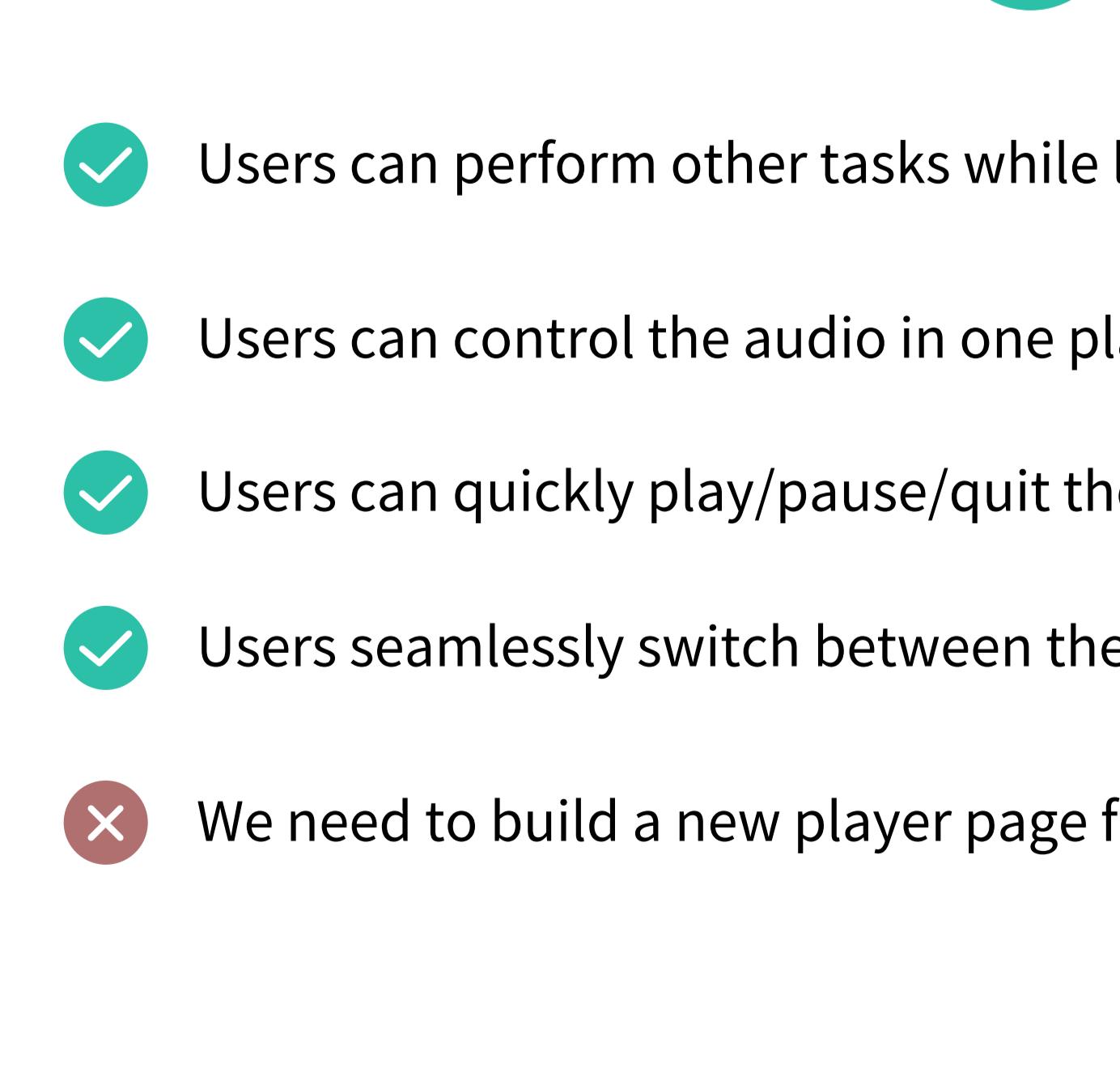
in reader



Approach

## DESIGN EXPLORATIONS

**Option1: Add a new TTS player entry point on the navigation bar which is available for all pages**



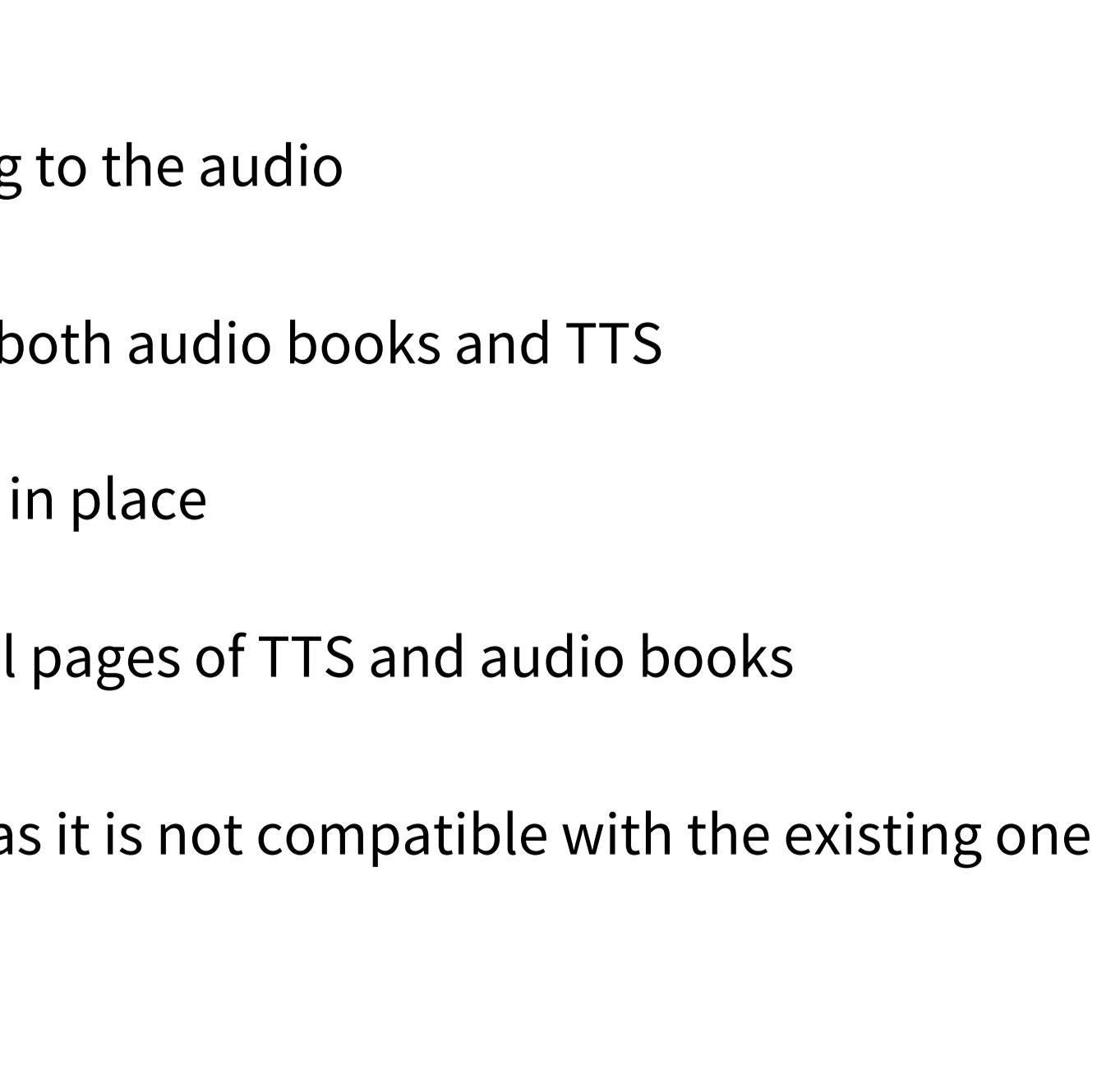
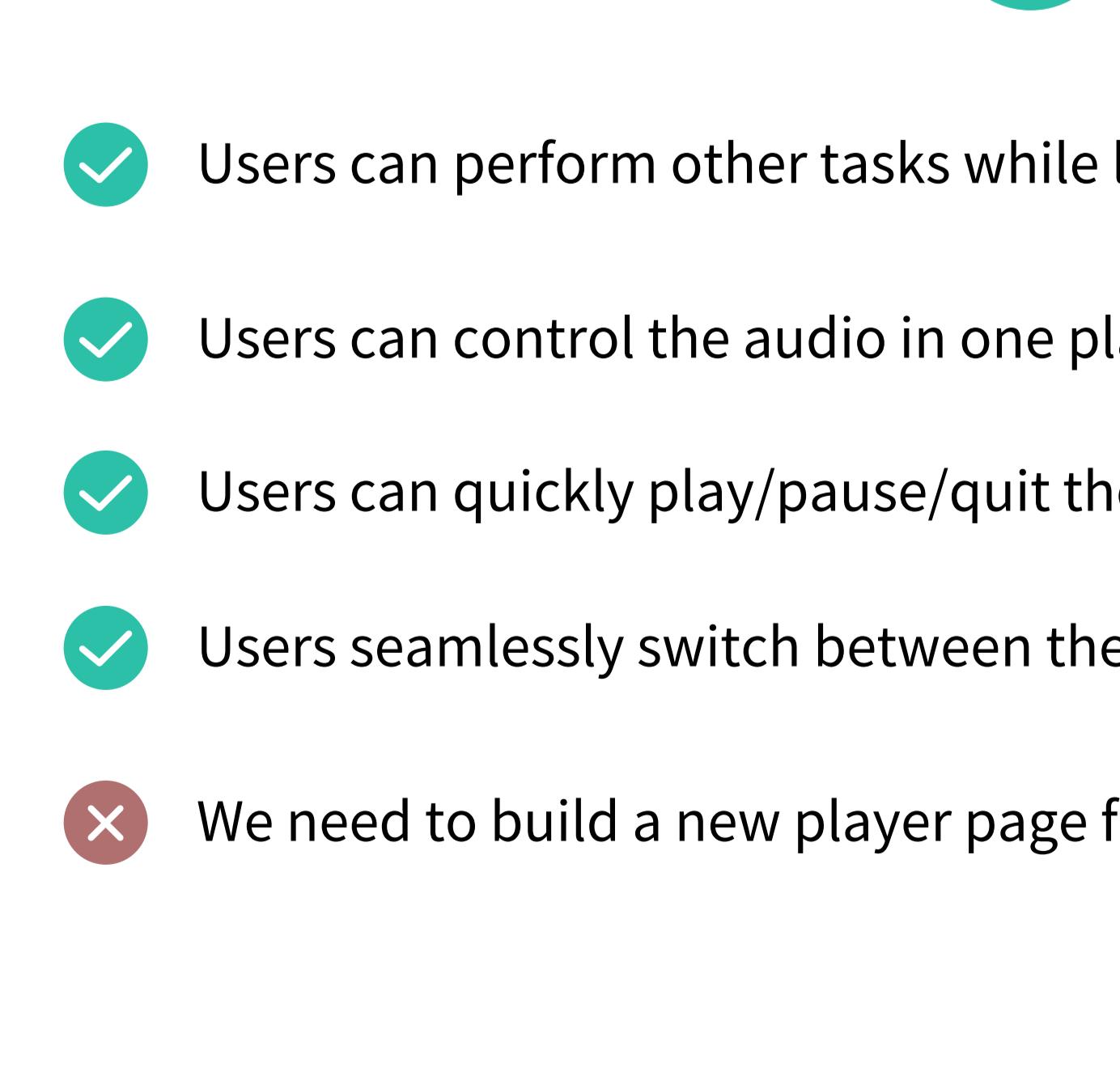
Testing findings about Option 1

- ✗ Users may become confused about two audio entry points as the navigation bar already has entry point for audio books
- ✗ The navigation items might get overlapped in certain pages
- ✗ Both the TTS and audiobook entry points have animation and users may feel overwhelmed
- ✗ Users need additional steps to control audios

- ✓ Users can perform other tasks while listening to the audio

Why Option 2?

1. Floating audio player naturally provides users with multitasking capabilities
2. Unified UI representations can provide consistent experiences and reduce confusion
3. Users can easily adjust their audios in current page



Testing findings about Option 2

Move forward

- ✓ Users can perform other tasks while listening to the audio
- ✓ Users can control the audio in one place for both audio books and TTS
- ✓ Users can quickly play/pause/quit the audio in place
- ✓ Users seamlessly switch between the control pages of TTS and audio books

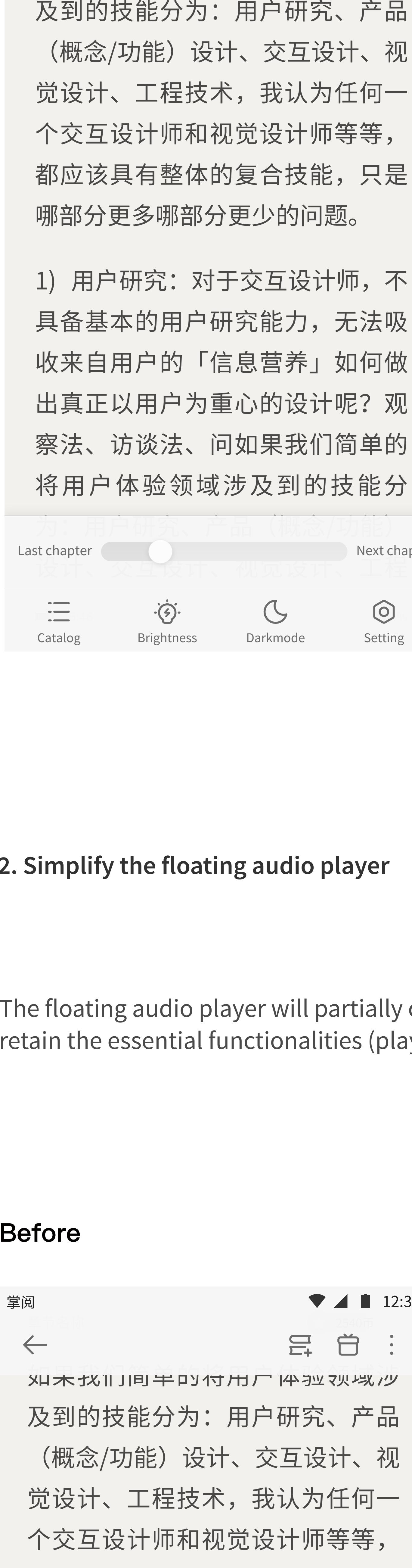
- ✗ We need to build a new player page for TTS as it is not compatible with the existing one

Option 2 Improvement

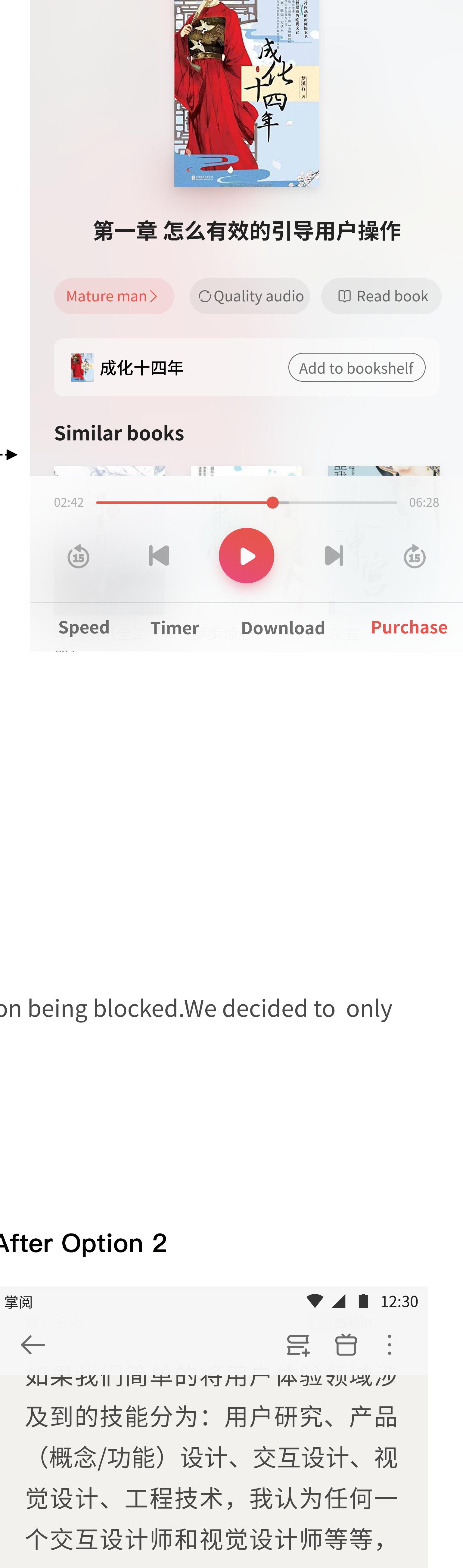
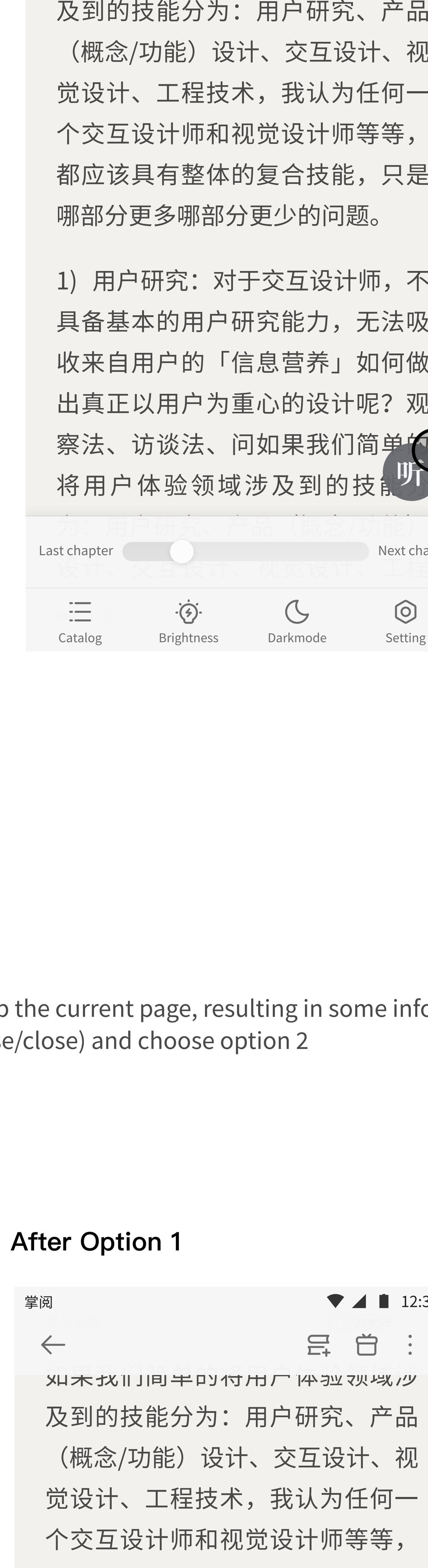
### 1. Enhance TTS entry point

Moving the entry point from the navigation bar to the bottom of the screen will enhance visibility and efficiency

## Before



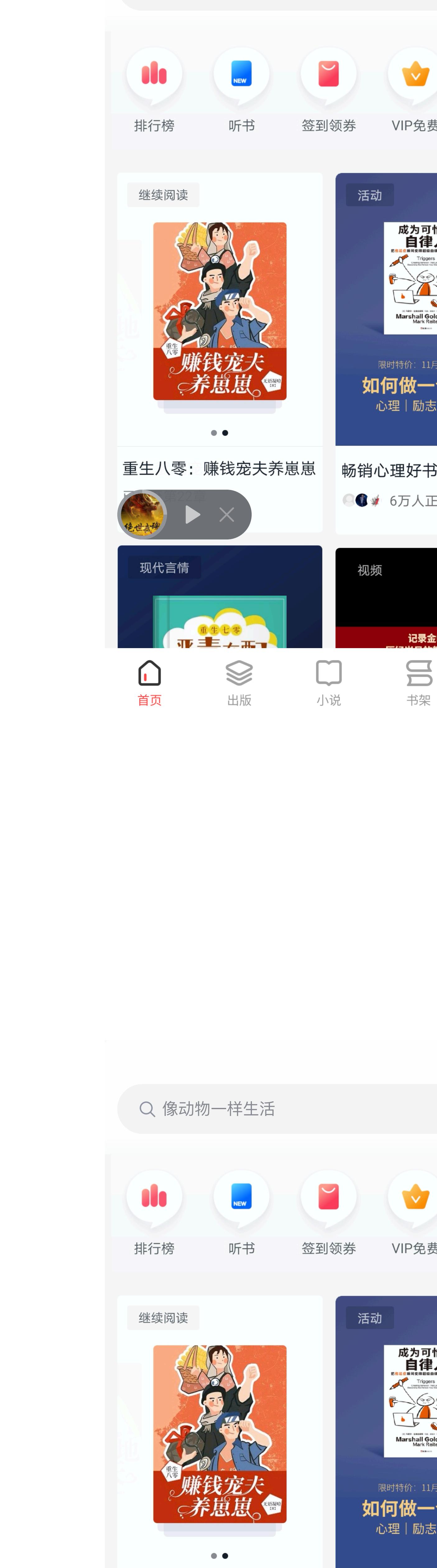
## After



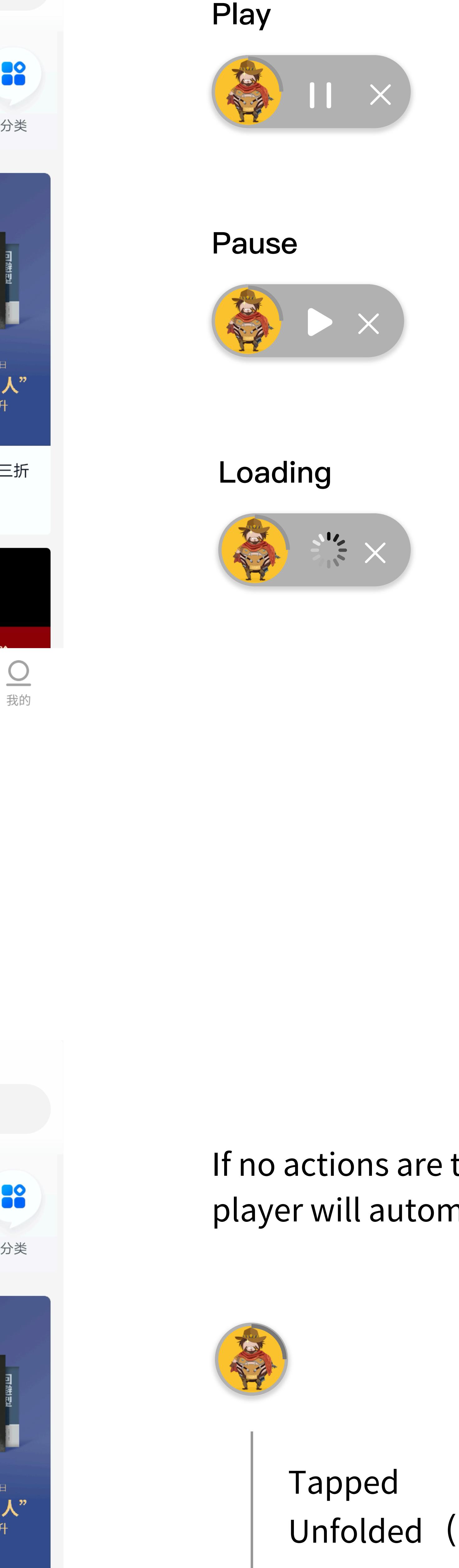
## 2. Simplify the floating audio player

The floating audio player will partially overlap the current page, resulting in some information being blocked. We decided to only retain the essential functionalities (play/pause/close) and choose option 2

### Before



### After Option 1

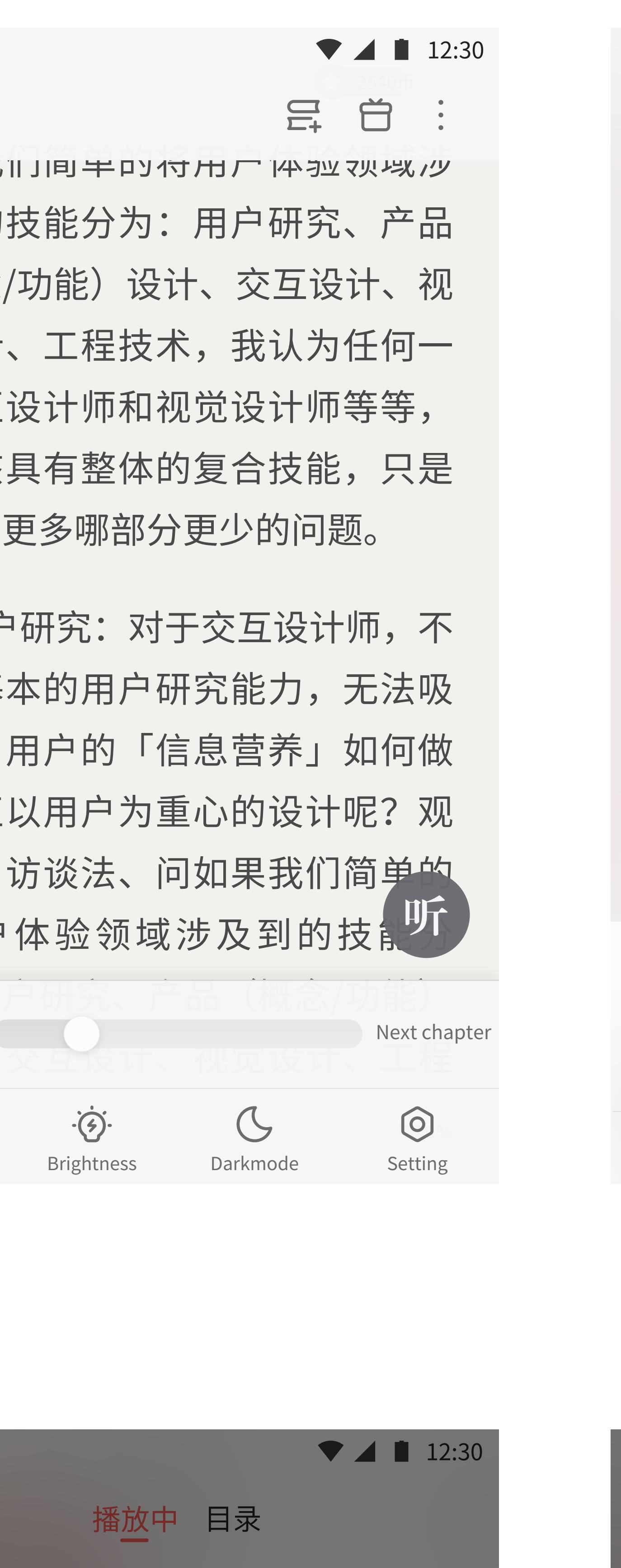


### After Option 2



## 3. Define the status of audio player

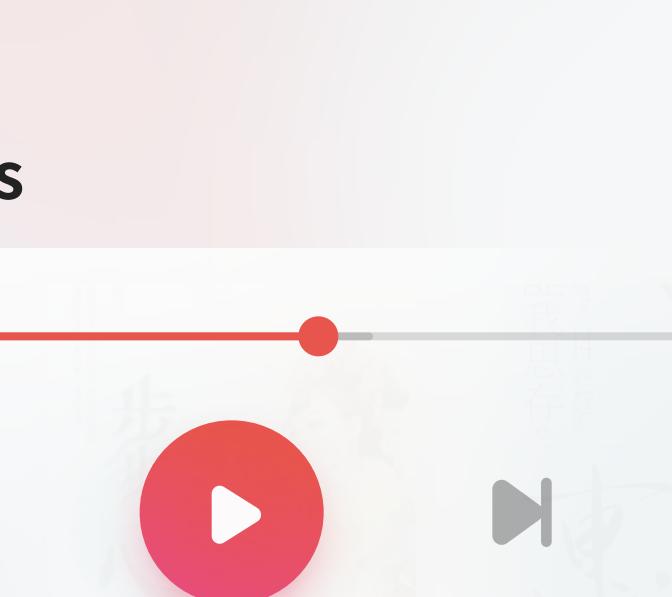
Question: If we use global floating audio play control, would it be too eye-catching on the page?



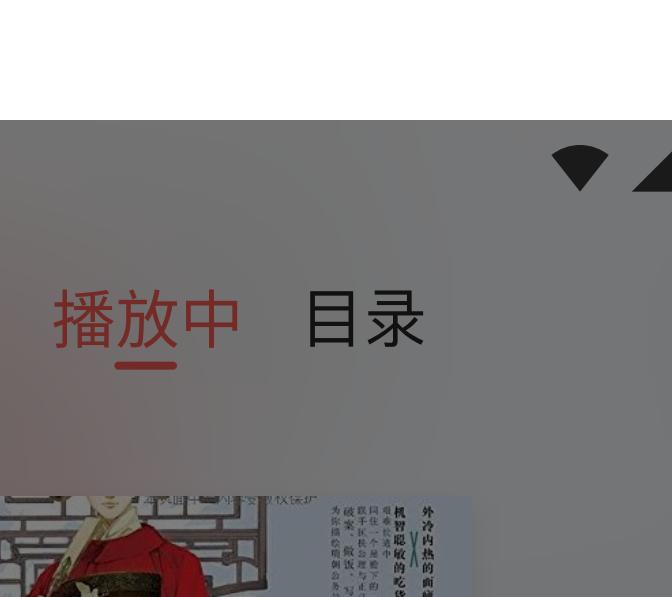
Play



Pause

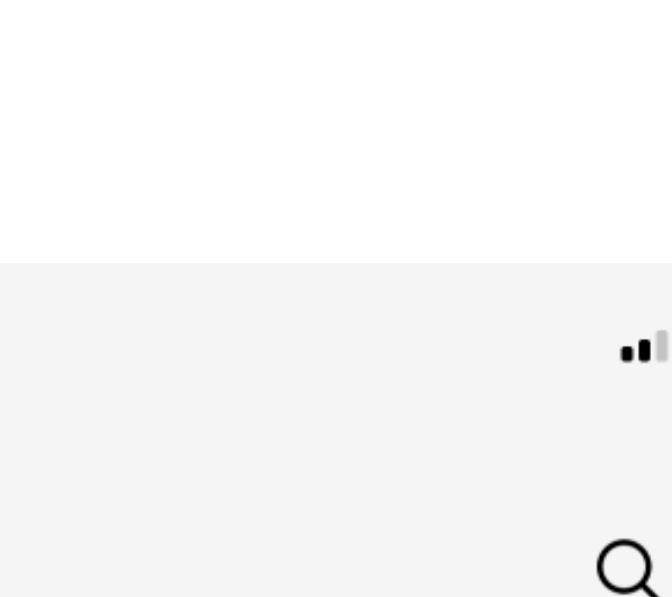
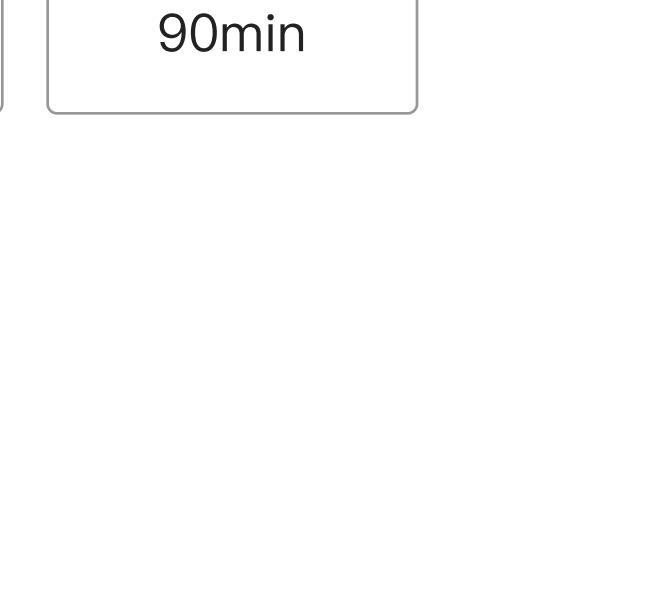


Loading



If no actions are taken within 5 seconds, the player will automatically hide several icons

Tapped  
Unfolded (transition animation)



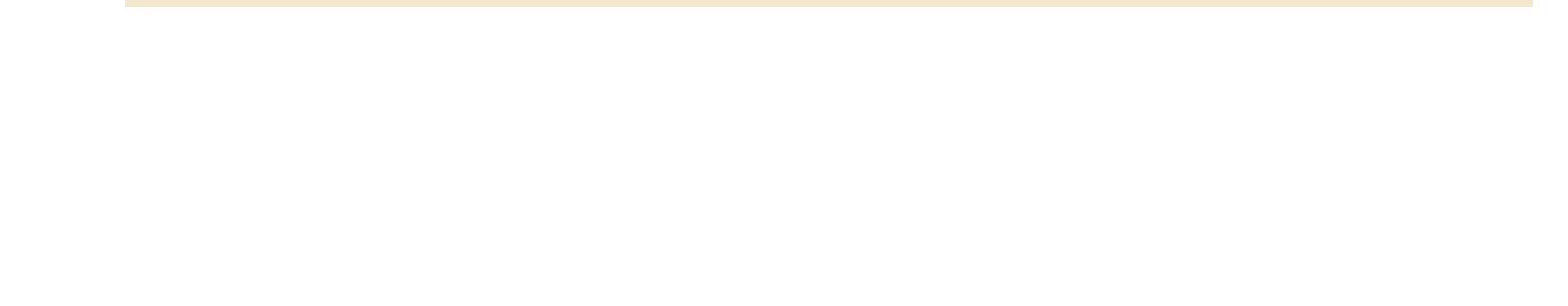
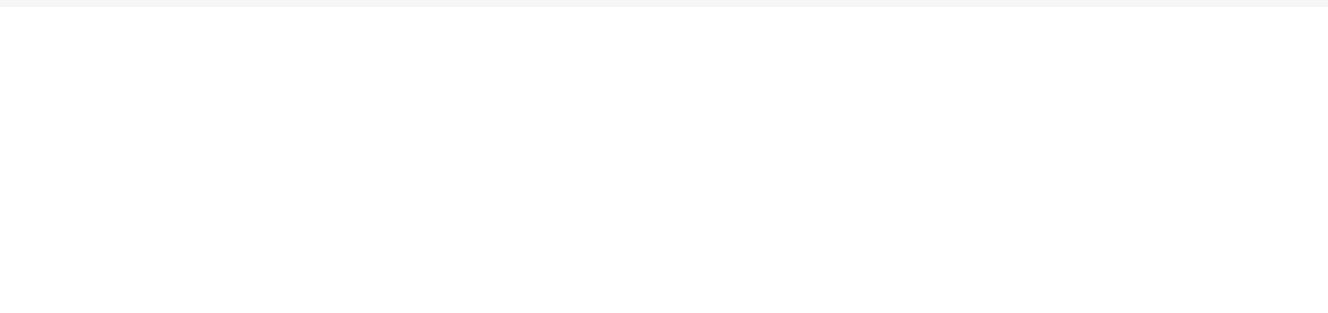
Cancel  
15min  
30min  
60min  
90min

0.75  
1  
1.25  
1.5  
2

Consider it as an add on value, we roll it over to the next development phase

## Approach

## FINAL MOCKUPS



protoype

#### User jounery after design improvement

"Wow! That's wonderful, i can exploring all the books and make some social connections without quitting TTS mode, so that I can listening everywhere and everytime!"

—Yu Gao

"This makes my listening experience more efficient so that i can better record while listening"

—Li Yang

#### Validation

## SUCCESSFUL METRICS

We expected to see the following outcomes:

1. Users will spend more time on audio (TTS, audio books)
2. More people will use TTS feature

3. Users who used TTS outside of reader/Total TTS Users > 50%

## A/B TESTING

We did the A/B testing with 10% users. Compared with the control group, we saw:

1.+3% TTS usage rate and time spent per user

2.97% user used TTS outside the reader

3.Retention rate of whole listening users has been increased

We did not see any negative results, all the metrics were positive, so we fully launched our new TTS flow and unitized audio play component

#### Result

## IMPACT

### Usage rate of TTS



### Time spending of TTS



### Time spending of the whole audio mode



## WHAT I LEARNED

Consistent design can help user better understanding

Even though the new TTS had positive results, there is room for improvement based on user feedback:

make the floating audio player draggable and foldable