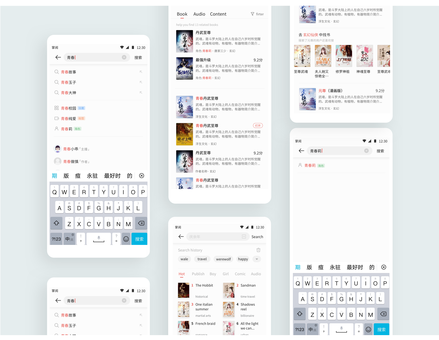
iReader Now enabling online readers to bond with their target character name into a new search founctionality

The goal of this project was rethinking a new searching experiences that deliver clear and affordable messages to online readers in a noisy world



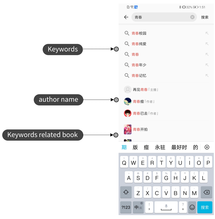
BACKGROUND

ZhangYue Technology develops, and markets mobile reading application known as iReader, a top 3 reading APP in China with 200 million monthly active users. The majority of user are young adluts who love reading novels.

My team's major responsibility is to improve users retention and activities. We have identified lots of potentials helping users find the right content and searching is the main approach for users to find the books. As a lead designer, I drove the overall design process, prioritized the project to ensure design would come in on time.

STARTING POINT

Users can only search by key words and author names, they did not have other ways to search.



MY CHALLENGE

It was challening to prove this is the right direction as other XFN partners thought current searching experiences have met users' needs, and they did not see the pressing needs of improving it. And thus I raised a few questions that eventually helped the team align on the decision:

Does searching have positive correlation with the company goal metric (retentions)?

How do users think about the searching experiences?

But how can I achieve that?

DEAL WITH AMBIGUITIES

Quantitatively

Metrics: search data tracking(pre, searching, post, retention rate)

Search survey: send survey and collect result in app and got 550 responses

keyword matching: analysis the searching keywords

Qualitatively

Feedback system: collect and group feedback from our customer feedback system

Customer team: collaborated with customer team and generated insights

Users who used searching in the past 28 days have +5% retention rate.

The satisfication rate is only at 9.6% (53/550) based on the feedback surveys. 50% users think it does not have the books they are looking for, 20% users think the searching functionality is too simple to be useful, 17% think the seraching results are inaccurate, 13% searching recommendation page is too complicated to be effective.

34 user feedback about searching in last 6 month or a year, grouping them into sections towards different problems

Conduct a searching suggestion report with customer team based on the user message and phone calls in order to discuss with PM team

REFRAME PROBLEM SCOPE

Users also frasutrated about search recommendation and result

Pre Search

13%

Searching recommendations are noisy

"Why does it recommend so many books that I am not interested in? I only wanted to read the one I am looking for."

Searching

20%

Searching functionalities are limited

" I only remembered the character name, but could not find that book."

Post Search

17%

Searching results are inaccurate

"The result did not give me the ones I am looking for, the Similar Books did not seem to recommend the similar books."

Problem 1

Users have limitied searching functionalities

Problem 2

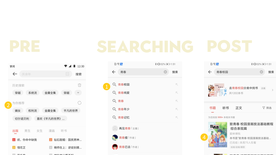
Searching Results & Recommendations

Problem 1

1. Functionalities are quite limitied: users can only search by key words and author names.

Problem 2

2. In the searching landing page (before key words are provided), the recommendations based on tags is less relevant, led to a low CTR (< 3%).
3. Most part of the Hot Recommendation is covered by the keyboard, and thus it cannot effectively guide users.
4. The seraching result page did not show the reasoning (e.g. highlight matched key words)
5. In the searching result page, recommendations are only based on book names



"As a user with searching needs, I hope it was an easy and efficient searching experience powered by rich but not overwhelming searching functionalities, more accurate and relevant results to help me find what I want."

DESIGN GOAL

Redesign the searching experiences to help users easily find the book

DESIGN EXPLORATION

Based on the problems and goals, I listed 3 directions to close the gap.

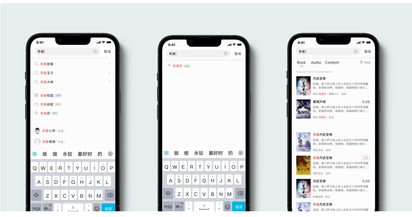
Accessibility

Dominance

Efficiency

Solution 1: Enhance Search Functionalities via Seaching by Characters

Based on the user feedback above, we knew that users desire more searching functionalities. And thus, we did the seraching analysis and found that 28.4% key words matched with character names. Therefore, we decided to support searching by characters as the first priority to help users find the right content quickly as well as help us to stand out from other competitors.



Ideation

we know that we need have character search feature, but what specific about character will work? I collabororated with other designers, pm and engineers to brainstorming some board ideals, we choose 3 ideals to deep dive into next step

Approaches

Character List

Display a list of characters in searching recommendations page, tapping the character brings users to a detail page where it shows brief character introduction, a list of books having this type of character, etc.

This design is targeting users with no specific searching goals, given the fact it is not the most common scenario (small opportunity size), and we decided to de-prioritize this one.

Character name highlighted

Highlight character name besides the book during searching.

So what is a character name highlighted? It is a character name will be showed and follow with the book if user searches the key words by character. Tapping on it will take users to the book detail page directly. We order this infomation into book section which is related

Constraints: users might not see the new section as it is positioned to the very bottom of the dropdown.

- Other UI elements (book photos) attract too much users' attention making this design less effective
- The character name will be covered by keyboard
- Due to lack of result list page, it is inefficient to find a right book when there are multiple results

Character Label

Another solution is to add a label to the suggested words.

So what is a Character Label? It is a label indicating there will be at least one book if users search by the character with this key word. The label is iconified to facilitate users to locate the right search option. And with color coding, we can easily extend it to have more options to satisfy new searching requirement in future. Tapping on it will take users to the character search result page.

Provide searching by character option in the top of the typeahead dropdown, tapping on it will open a new page to display the searching result based on character

But magic won't happen overnight

- The tag with solid background is more discoverable
- Extra information in result page can further help users find the right books
- Easily extend the searching capabilities by applying different color coded labels
- Low visual and informational efficiency when displaying multiple searching results
- The changes to the order of suggested words require more engineering refactoring

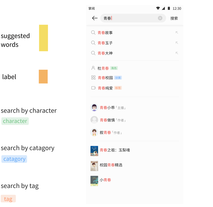
Considering the drawbacks of Character Label are something improvable while the ones of Highlighted Character Name are not, so I decided to move forward with Character Label.

- Accurate Searching
- Great Extensibility
- Easy Implementeaion

Updeated Design

Trade off decision: how many key suggested words should be displayed?

- Remained the same order when displaying the regular suggested words
- Reduced the number of suggested words from 5 to 3 in order to bubble up the Character Label in the dropdown based on the data we found that users generally interacted with top 3 words in first section
- Extended the label to include Content Tagging and Book Category



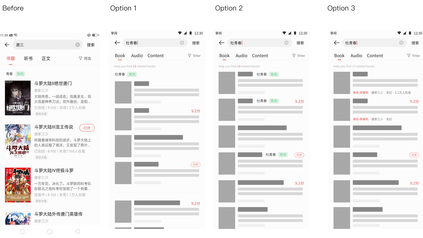
Consider right elements

The main goal for result page is helping users QUICKLY locate the RIGHT content. And the previous layout of book information did not follow the importance of information. Therefore, I relocated the book information (e.g. Moved the rating to the top right), see below.

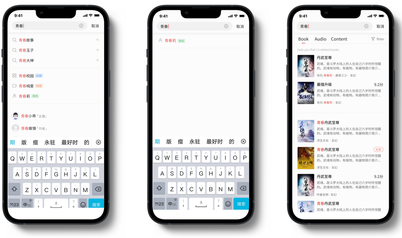
Since we supported searching by Character Label, how do we associate the search results with it? Based on this, I came up with three different options:

- option1: Put Character Label for all of the books.
- option2: Put Character Label next to the book name for each book.
- option3: Put character name within other assistant data, and highlight it.

Option 1 has less strong connection between characters and books while Option 2 does not visually align very well as the length of book names could vary often times. Option 3 does not have these drawbacks, most importantly, with highlighted text, users tend to read other assitant information which helps them better understand and make the decision. Thus we chose the Option 3 as the final design.



Final Design

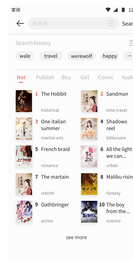


Solution 2: Optimize Search Recommendation

We used to borrow the ideas of social media apps, and built many feed recommendations across Home page and Search page for the purpose of user engagement. However, we have seen the product cannibalization between these two pages. For example, Recommended Search for You (in pre-seraraching page) had only 2% CTR. Hot Search (with images) had a much higher CTR but low exposure. Therefore, I concluded three hypotheses as below:

1. Avoid product cannibalization
2. Users might be more attracted by images than text
3. Users tend to be more interested with the hot topics

Consolidate the recommendations



Design Decision

I suggested to remove the "Recommend for You" in pre-searching page to avoid cannibilization with Feeds, which also freed spaces for other high signal modules. Also considering the Hot Search was overlapped by keyboard, I suggested to consolidate it with Catogory list.

FULL LAUNCH

Timeline

Phase1（2021.7）

1 角色搜索功能

2 搜索前推荐页面

Impact

搜索页书籍点击率

30%

搜索页整体书籍点击率提升30%，其中阅读转化率提升10%

搜索页整体次留

5.34%

搜索页整体点击次留提升5.34%，曝光次留提升3.2%

分类榜单点击率/点击次留

17% **34%**

搜索前页面实验组2表现最好，实验组2次至全量，分类榜单点击率提升17%，点击次留提升34%，曝光次留提升57%

Feedback

在经历过几周的开发和测试之后，我们选择了Uxo的用户实验组进行灰度测试，然后发现用户的角色搜索量并不高，所以对于老用户进行引导，对于新用户要进行功能认知，所以我们在搜索前的搜索框内提示用户请输入感兴趣的角色名，对于老用户在搜索处提示有角色名搜索功能了

新增了这些提示，我们希望用户点击搜索使用率提升，搜索角色名范围提升

同时我们发现用户搜索角色名和与角色名匹配的第一本书籍重合率较大，且热门较多，我想了2个approach：

1.在主角搜索标签旁边提示匹配第一的书籍名称，点击直接进入书籍详情页
2.在搜索结果页面新增排行榜相关入口

掌阅
12:30
搜索
搜索
书籍
榜单
作品
作者
作者名字
作者名称
书名或者
书名或者 0/0
书名或者 0/0