

## **Final Report on Prototype for Hair Dyeing**

### **Requirement**

#### **Problem Statement: Persona and Pain Points**

The target users are defined as young people, mainly female, aged 20-30 who dye their hair to get a good-looking, to be eye-catching, or to pursue the current fashion trend. They may have a habit of hair dyeing, or it may be their first time to dye hair, but they all attach much importance to the action of hair dyeing and tend to collect information before they finally get their hair dyed, including hair colors, hair dye, salons, and stylists, to know about the current trend, or to avoid unsatisfying outcomes, such as not getting an expected new hair color, uncomfortable with the poor-quality hair dye, or confronting with a bad stylist.

The pain point of this group of people is that no website is designed to address all the possible information that the target users need. Information about dyeing hair is scattered and unorganized, and so target users described above often need to switch between different apps or websites, trying different terms of keywords to fulfill their needs of information.

For example, User A decides to have her hair dyed and tries a new color. But she doesn't know what colors are available and wants to know what is the trend lately. Then she may perform search on social media, from WeChat, Weibo to 小红书. However, the presentation of information and the value of information vary from platform to platform. User A needs to be familiar with these platforms to select the efficient

keywords for information search. She also needs to read through many posts on each app under different keywords for just a single issue of hair colors. But this may not be the end. She can still have other decisions to make, like how to get her hair dyed, DIY or salons, which hair dye is better for hair, which stylist could guarantee the outcome. Then many other rounds of information search are in need, but it is tiring to search all the information on different apps or websites, let alone the variation of keywords and search results.

Based on the journey of User A described above, the customer journey map is as follows.



On 小红书, there are more than 1.32 million posts shared under the keyword “染发”, and the most read post has got 45 thousand likes, which shows that the potential needs are enough for a new website that helps users complete the task of hair dyeing.

#### Prototype Requirement:

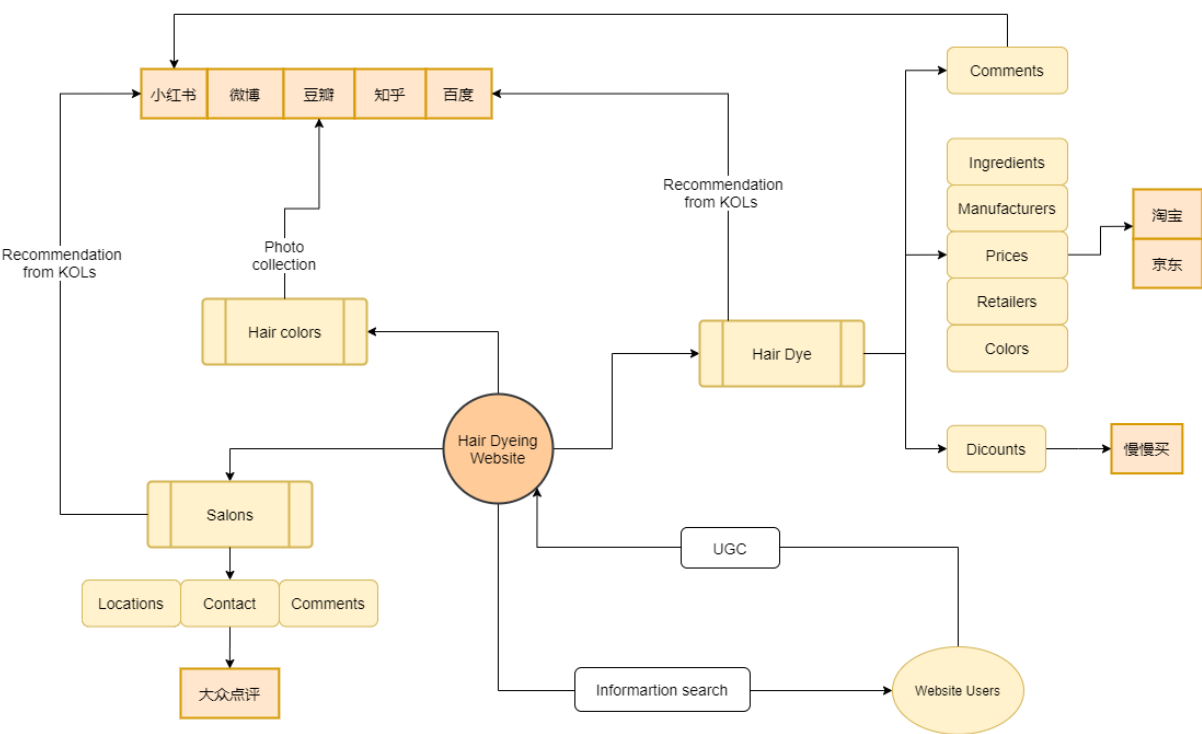
According to the problem statement, the main issue for the prototype to deal with should be the information presentation. The first objective is to simplify the information search process by concentrating all the information from the most used platforms. Consequently, users no longer need to open apps and websites one after another to look for information, and do not need to put in different keywords to try different search, but mainly click and select to see different categories of information. The second objective is to present a sequence of information to provide a full image of information architecture. The current solutions offer scattered information, and many users who perform search on their own may not have a general idea of what kinds of information they need. Therefore, the prototype should serve as a reminder, to give hints about users' possibly needed information. On the other hand, potential purchase desires can also be invoked in this way.

In terms of content, the three major categories of information in hair dyeing include hair colors, hair dye, and salons and stylists according to the journey map. Under hair dye section, product information about prices and discounts, ingredients, manufacturers should be included. For salon section, location and contact information should be available.

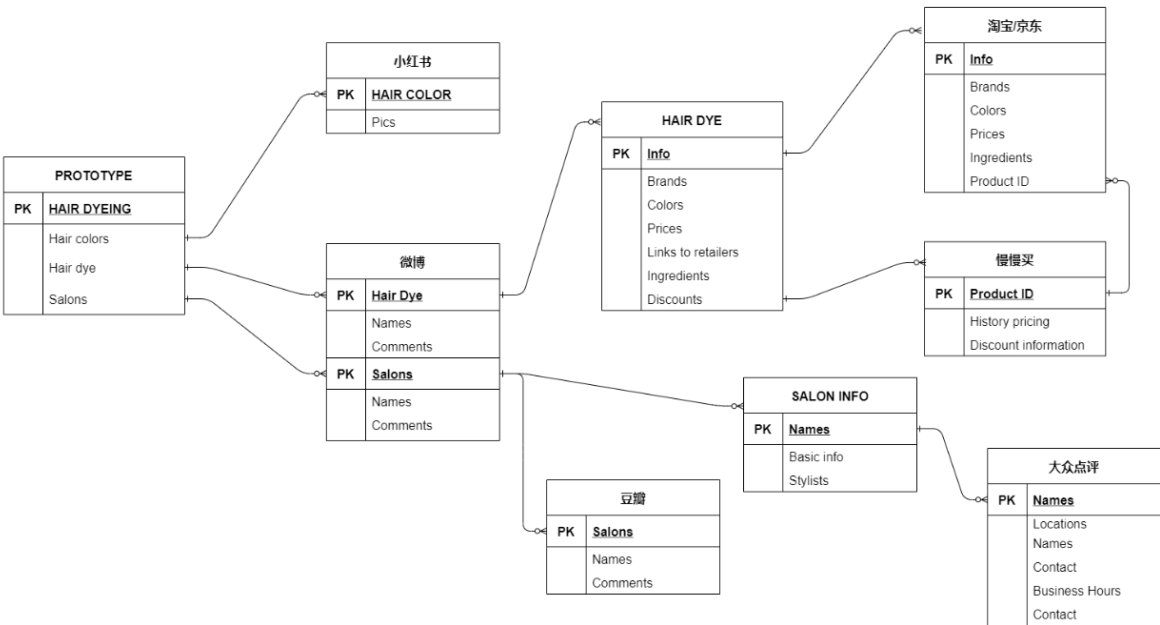
Design

Based on the analysis above, the data flow and entity relationships of the prototype are designed as the diagrams show.

Data Flow Diagram



Entity Relationship Diagram



A user test on 小红书 was conducted before the presentation and visualization of data. 小红书 as one of the most popular social media is famous for its user-generated content, and many people tend to look for information by searching on it. The user test plan was designed as the dashboard shows.

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<b>PRODUCT UNDER TEST</b> What's being tested? What are the business and experience goals of the product?  小红书 A mobile app for information sharing and e-commerce	<b>TEST OBJECTIVES</b> What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested?  What information do users expect from the posts?  How long do they stay on each result page?	<b>PARTICIPANTS</b> How many participants will be recruited? What are their key characteristics?  5 users  All have their hair dyed out of good-looking or pursuit of trend	<b>TEST TASKS</b> What are the test tasks?  1. Specify what kind of information is wanted, hair colors, hair dye, or salon and stylists?  2. Perform search with any keywords you like and read the result pages until you feel that you find enough information, or until you don't feel like continuing.	<b>RESPONSIBILITIES</b> Who is involved in the test and what are their responsibilities?  Me only
<b>BUSINESS CASE</b> Why are we doing this test? What are the benefits? What are the risks of not testing?  To address the problems encountered by its users when searching information for hair dyeing.	Are they satisfied with the high-ranking sharing posts?  Do they make or change some decisions after searching the app?	<b>EQUIPMENT</b> What equipment is required? How will you record the data?  Smartphones with 小红书 newly downloaded  Employ screen recording on the phone	3. Tell me what will you do with your information? If no, what will you do next?	<b>LOCATION &amp; DATES</b> Where and when will the test take place? When and how will the results be shared?  2020/11/8
<b>PROCEDURE</b> What are the main steps in the test procedure?  <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">0-5 min Test intro</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">5-10 min Pre-test interview</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">10-45 min Carry out test tasks</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">45-60 min Post-test interview</div> </div>				

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All the five participants performed search on 小红书 about hair color information. Keywords used in the first search included “染发”, “发色”, “发色推荐”, “发色大全”. Some of them put in the broader terms in order to obtain more posts, while others first put in a broader term but chose the items below to narrow down the search scale. Two of them sorted the posts by likes, and then read through one after one. Others who did not change the default ranking selected the ones they are interested in, mainly according to the cover of the posts. Only one of the five participants found a satisfying color, while the other participants did not click on the posts more than five times during the first search. They went back to the search bar and entered many other keywords. In

the post-test interview, they complained that the posts were too messy to help so they would rather perform another search than staying.

As two of the participants prefer to buy hair dye and DIY, they clicked on the posts about hair dye recommendation while looking for hair colors. When asked whether she had finished color search, one of them said that “Not yet. But it is natural to click on that post (about hair dye) that I think is useful.” The posts about hair dye have been tagged “hair color” so they appeared on the result page of hair color search, and interfered with the participants’ intended search.

The five participants were generally not satisfied with the search on 小红书. They decided to end the search far ahead of the given time because they were not positive about any more useful information. The main reasons for the dissatisfaction given by them are “felt tired with so many useless posts” and “I lost my thread in searching”.

To avoid the reported problems in 小红书, the three categories of information about hair colors, hair dye, and salons are divided into three individual pages. The header and the navigation bar of each page remind the users of what information is contained in this website.



When users land on the website, they may click on the buttons directly to get the target information or scroll down to see what other content is provided. Therefore, below the header on homepage, information about current trend is provided to target at users who tend to focus on the trend, followed by a button linked to the hair color page. The same with the following hair dye section, pre-introduced with the attractive pricing graph and keyword “discounts” to target at probably the most concerned issue.

## 找点新意思

**挂耳染**作为2020大热趋势其实也是挑染的一种，因为只挑染耳朵附近的一撮而被称为“挂耳”。减少了挑染范围，让挂耳染比挑染稍低调，但很多人会选择亮色或对比色，注入高调的个性。

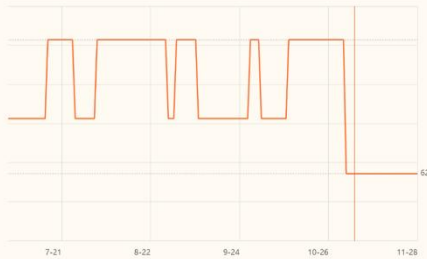


Yumiko



Lisa

> 找颜色



## 找点折扣

双11和双12都过了，是不是就不会再有优惠降价了？No! 看看历史价格走向，找准出手时间！

> 找染发剂

The last section on homepage is designed for user-generated content. Comments and reviews received from users will be displayed in slides, followed by a simple form for users to devote their ideas.





For the hair colors, the names of hair colors are numerous but not informative online. The same color might have different names according to different bloggers on different platforms, which can be confusing. So below the header part on hair color page, a paragraph is devoted to illustrate how the colors are organized on this website. The following buttons suggest the major color schemes in hair dyeing, to offer a clear information frame. Users can click on the buttons to view the classified colors under each color scheme, and the texts help to identify how the colors are different. In short, the responsive gallery for hair color display is trying to simplify the color classification and visualize the new classification more clearly and directly.

For hair dye page, an Airtable is embedded to display detailed information

including brand names, colors, prices, and links to purchase. Users can view by colors, brands, and ingredients through the selection tool. Three links are provided in each Airtable card, the link to online stores in Taobao, the link to history pricing in 慢慢买, and the link to notes in 小红书. Plus, as prices are the most concerned issue, a line chart is also embedded to visualize the pricing of four major products, and users may be inspired to view by brands accordingly to check the information in the Airtable, which can be more efficiently. The salon page is much the same, with Airtable embedded to showcase information, users can view by cities to filter information. As not all the cities are covered in the table, a form is provided below to collect more content generated by users.

So basically, this prototype for hair dyeing information is doing the job of collecting, selecting, classifying the three categories of information for the users, aligned with the objectives mentioned in the requirement part, to simplify information search and provide a complete sequence of information.

## **Evaluation**

Before settling on the final version, two A/B tests were conducted on Google Optimize. The first one dealt with the slides on the homepage. In the user test of this prototype, a user said that the slides were too fast to follow, therefore, an A/B test (A9) on whether the automatic slides should be reserved were conducted, and the results show that the page with the automatic slides perform better, with double session duration compared with the page with manual slides. The possible reason would be that

users are attracted by the motion, and they may be driven to explore what's next. Therefore, the automatic slides are kept in the final version, with longer intervals to solve the problem of "too fast". The second A/B test (A10) concerned the line chart about pricing on hair dye page. Though placed below the Airtable, the chart still achieves longer session duration in the test.

Desired improvements on this prototype include the content and display issues. First, the volume of information should be increased, mainly about the recommended salons in different cities. Currently, only part of the cities in China are covered in the prototype, which are far from enough. As the data source from Weibo is an open discussion, it takes some time for content to generate. Second is about the embedded Airtable. Both hair dye page and salon page adopt Airtable to display information, but it is not good-looking and not aligned with the website style in terms of design. Then in terms of information display, it is also not the best choice. Airtable is within a frame itself, and each item with links inside is further framed, so if users want to click on the link, they need one click on the Airtable, and one more on the link. The ideal design is to display the information in responsive cards, and deal with the links using buttons, but it concerns coding issue which is beyond my capability, so Airtable is chosen as a substitute. But I think that future improvements can be expected.

To maintain this website, regular updates are needed. First, there should be updates on current trend, and the update period can be one season. Plus, close attention should be paid to famous artists, entertainment TV programmes, fashion shows, social media etc. to follow up on the changes. Second is the weekly update on pricing. There should

be a routine update every week and more frequent updates when it comes around some discount periods like Double 11. Third should be email checking every week. As users' reviews and comments are submitted to the Google email box, checking emails and updates on user-generated content should also be included.

For the business case, if the traffic of the prototype is enough, it can seek cooperation with the KOLs and online retailers. There are links to Taobao and 小红书 in the prototype, and currently the links to 小红书 are directing towards the most-liked posts, and the links to Taobao are to the official retailers. Some less popular KOLs and other individual retailers may need the traffic of redirecting to get improved. Therefore, with enough traffic, it is possible to cooperate with them by embedding their links, and ask for benefit sharing based on certain evaluation like clicks, views, and purchase via the links in the prototype. The same with salons. Financial benefits can come from displaying or higher ranking. Another way to earn is being a retailer. Many popular hair dye products are produced and sold overseas, and can only be purchased from agencies, but consumers tend to be skeptical about the quality. If the prototype gains reputation, it can also be a platform specially for foreign hair dye purchase. Furthermore, there can be cooperation with the domestic hair dye manufacturers who may need market share improvement, making a profit by charging advertising fees and selling their products.