

Group 4 Meet Fresh Prototype User Interview Report

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Abstract

The report documents the brainstorming results of the proposed recommendation system for Meet Fresh. After brainstorming and discussion, only 1 idea was determined to pursue further and 3 low fidelity prototypes were built upon it. Verbal prototype, paper prototype, and wizard of oz were used to represent the solution. User feedback was analyzed for each prototype to extract insights to modify the next iteration.

Brainstorming plan

To achieve the best result we conducted individual brainstorming first, then carried out group brainstorming later. The brainstorming plan is shown as below:

- **Individual brainstorming:**
 - Have 2-3 individual brainstorming sessions at different times. Each session shouldn't take too long.
 - Try to propose ideas as much as you can.
 - Try to propose ideas that use traditional and nontraditional tech.
 - Think about customers' needs.
 - Think about the company's revenue/profit.
 - Think about the scenarios that are beyond the scope.
 - Think about the customers who are beyond the scope.
 - Think about how to solve the problem more broadly/wisely. At the first stage, don't set any constraints to limit your imagination.
- **Group brainstorming:**
 - Glance through individual ideas.
 - Inspire more shining points through group discussion.
 - Choose three promising ideas, then narrow down to the most interesting one.

Some ideas from the individual/group brainstorming list below:

1. Recommends items to users with personalized promotion.
2. Recommends customized items to users based on location, and season.
3. Recommends items to users based on ethnicity/cultural background.
4. Recommends 'Frequently bought/order together' item bundles with a special discount.
5. Recommends items with voice message/search.
6. Sort historical popular items & recommendations to new users; Recommend based on old users' historical data.
7. Say something to show recommended food: 'I am happy'; 'tea'; 'going to work'; etc.
8. Link to Twitter or yelp, etc, to find history posts about the users; analyze users' positive reviews on food, extract menu and what they like, and recommend similar textures/tastes.
9. Drink scene option: drink for working/shopping/studying/party.
10. User face recognition to link users' faces and their favorite food.
11. Recommendation changes daily, based on weather, your mood, and your favorite color.
12. Top 5 Low-calories food
13. Instagram connected.
14. Live stream from other stores.
15. Word clouds, use keywords description from customers to describe the ingredient or item (flavor, texture, look, taste)
16. Staff training and rating system to improve staff services.
17. Some specialties during holidays or seasons.
18. More stores in urban areas and universities.
19. More options when buying milk tea, such as 0 sugar, 25% sugar, half sugar, 75% sugar and full sugar, no ice, less ice, and full ice.
20. More attractive take-away packaging.
21. The location option (ZIP code): Meetfresh stores are located in urban areas, and people from rural areas have to take-out.

22. Many customers prefer purchasing the Mettfresh at weekends — coupons & promotions on weekdays.
23. Separate the milk tea bar & snacks preparation area: the milk bar could be semi-open, pedestrians can purchase the milk tea on the side of the street, and it can attract more customers.
24. Pictures, descriptions, and prices are helpful for customers, especially the pictures. Adding this information into the menu.
25. Customers treat Meetfresh as a snack rather than a meal, launching some products like the meal?

Selection Criteria

The selection criteria the team used:

1. Address customers' needs for ordering
2. Technology feasibility
3. Access to dataset

Despite having ideas to improve the sales and rating of Meet Fresh, we decided to narrow our scope for our recommendation system to improve customer experience when placing an order. Thus, we eliminated all the ideas regarding improving the store, employees, and product. We also take technology feasibility into consideration. While having think-outside-the-box ideas, there are certain technology and hardware limits that our group can not solve during this project, so we decide to move these ideas into future explorations. Access to dataset is also a big concern for the team due to the reason that certain sensitive information may dramatically improve the recommendation system, but may cause privacy concerns for the customers.

Verbal Prototype

The first prototyping method we used is the verbal prototype. We used the following description to narrate our idea to the interviewers and collected feedback to improve our prototype.

“We are going to build a recommender system based on scenarios. This system can recommend different products of Meet Fresh for different scenarios. Firstly, it can recommend drinks or snacks depending on what you are going to do, including: going shopping, studying/working, or hanging out and so on. After you make the selection, it will recommend the suitable drink or snack for your scenario. Then, it is going to recommend more specific drinks based on the local temperature. More than that, it will also recommend different toppings based on different seasons. Of course, after selecting your drinks, you can choose to let it recommend other products like snacks based on weather conditions. During the whole process, you can always let our system decide for you and it will randomly choose one of the recommended products.”

Our interviewees think this is an interesting system to use, but most of them are concerned about privacy issues, some of them are unwilling to share their activities and others will use it if the privacy policy is clear. Another issue pointed out by our interviewers is that our system may be time-consuming for customers to select so many scenarios. With this feedback, we are going to improve our system based on more external factors, such as weather, seasons, ingredients, and so on. We also need to consider the steps the customers are willing to take to make our system more efficient and user-friendly.

Paper Prototype

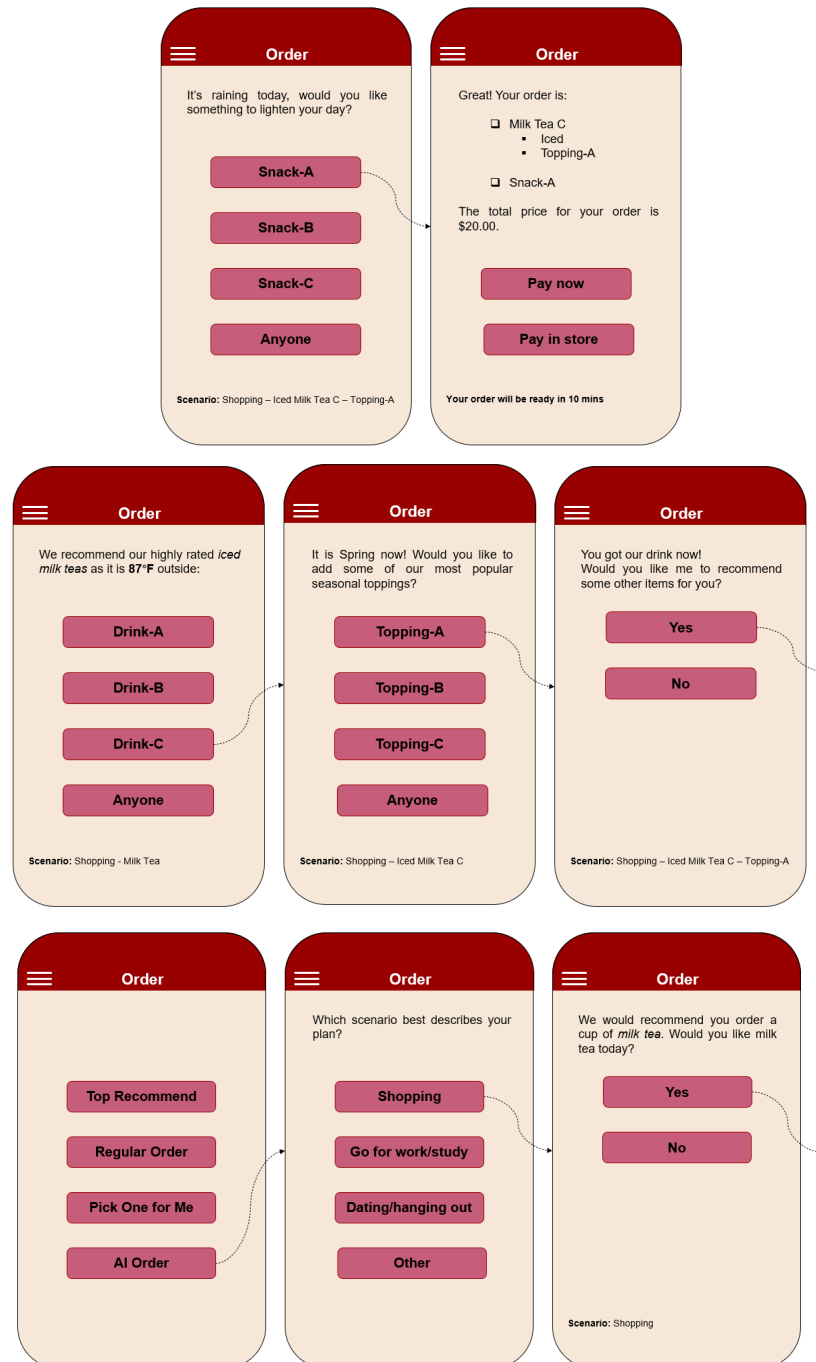


Figure 1: Paper Prototype

The paper prototype is trying to implement the recommendation system into the current interface, primarily focusing on the order step.

The first page enables the user to select different methods when placing an order. There are four types listed: top-recommended, regular order, random order, and AI recommendation.

- Items in this the top-recommended can be seasonal special or monthly/weekly best sellers. (Many interviewees stated that this can help new users know where to start and help returning users learn what is new.)
- The regular ordering system in this prototype enables users to choose base, topping, sugar, and ice levels step by step, incorporating the top-sells/random/recommendation in every step. Regular orders will include the menu with unavailable items grayed out for each store. We anticipated this menu could be updated every day for every store. As illustrated in the need-finding procedure, review observations showed that many negative reviews complained that they had waited for out-of-stock items after ordering.
- Random selection helps users with difficulty to choose among many items. We wish this selection could also function like a Mystery Box to prompt profit.
- AI recommendation selection refers to the recommendation system we decide to develop, which will be detailed in the following.

Once the user selects the AI recommendation method, the app would lead the user to different scenarios on the second page, such as picking up a drink to go shopping. It also enables users to input anything they like in the 'Other' button. We expected this app could let the user input anything that fits their mood, such as 'I am happy because it is a good day.' The recommendation system finds a link between a recommended order and the user input. The three listed options could be the most scenarios that customers come across.

The following could be step-by-step like a regular order, but with additional considerations of exterior environment or user profiles.

- On the fourth page of this paper prototype, we list the exterior environment to select the ice milk tea as it detects relatively high temperature. This step narrows down the menu to only a few options for the users. In addition, it can also go the

other path named user profiles, such as a girl trying to lose weight; then it will recommend something with low calories.

- Next, the prototype showing the selection of toppings is based on the season. For example, customers may like grass jelly more than red beans during summer. Such a trend is going to be found in the data analysis step.
- We would try to add sugar or ice level options in the procedure based on either exterior environment or user profiles.

To go one step further, the system will also recommend the best snack to come with the drink or vice versa. In the brainstorming procedure, we agreed to develop a 'combo' option for the recommendation system. Although simplified, the paper prototype illustrates most functionalities proposed in the need-finding and brainstorming procedure. In addition, it targets either new or returning users, and it is easy to use. Most of the effort will be put into the AI recommendation algorithm to match the exterior and user profiles.

After the interviewees reviewed the paper prototype, the feature we failed to provide is the "back" button for navigating to the menu or the regular order page or going back to the last page. Some interviewers also wanted broader scenarios than those provided, while others wanted to group the scenarios into more general cases. This requires more user interviews to determine the right description and the number of scenarios. Additionally, the interviewees would not want to use the recommendation system to adjust the topping, ice, and sugar level. They said this is more of a personal choice themselves. An overall design deficit highlighted by the users is simplicity. Interviewees demonstrated the need for a system to be simpler and faster instead of comprehensive.

Wizard of oz

The functionality of the AI recommendation system is to recommend food or drinks to the users. The user can interact with the recommendation system through voice

dialogues. The wizard of oz prototyping technique is used here to illustrate the process. A hypothetical will proceed as follows:

Context: Spring morning, user ordering processes, purchase recommendation.

AI: what scenario most accurately describes your following plan? Going shopping(to go), dating/hanging out with friends (dine in), or taking it home.

User: I would like something to go when shopping.

AI: We would recommend you to order milk tea. Would you like milk tea today?

User: Yes

AI: The current temperature is 30 degrees celsius. So hot right! We recommend our highly rated iced milk tea A, B and C. Would you like to order one of these or let me randomly choose between the three?

User: I chose A.

AI: OK. It is Spring now! Our most popular seasonal topping is A, B and C. Would you like to add some?

User: Yes, I want B and C.

AI: Sure! You got it.

OR

AI: Would you like me to recommend items based on weather?

User: Yes.

AI: It's raining today, would you like something to lighten your day? We recommend these A, B and C. Please choose one.

AI: Based on the time of the day, we recommend XXXX or xxxx

User: Perfect!

AI: Thank you. Your order is completed.

A “smart” recommendation system could facilitate the ordering processes. Users can customize their orders through their communications with the recommendation system. “No topping”, “no iced”, “no sugar”, “pick up an hour later”, “go back”, various choices are available here, as well as other options if users have extra requests. What’s more, the recommendation system could adopt optimization algorithms and adopt different scenarios to provide the best choice to each user. The goal of the AI interface is to provide the smartest choice in a timely fashion.

The wizard of oz prototype is a representation of what the product could be in the team’s vision. To our surprise, many interviewers are attracted to the high-technology interface and have positive thoughts toward the recommendation system. However, after walking through the dialogue, they think the process is too tedious if they have to complete more than two steps to make a purchase. In some extreme cases, some users don’t even want to use the recommendation system, they just want to click on the screen several times and finish the ordering processes.

Reflection

Based on the user’s feedback, the interviewees are more intrigued by the recommendation system that selects drinks or snacks based on external factors such as weather and season than a scenario-based system. We need to conduct more user interviews to determine the need to modify or remove the idea of the scenario-based system. Another critical finding is that interviewees could be driven away by a comprehensive but complex system. Simplicity and user-friendliness are critical UX/UI features we need to consider. Overall, the prototyping and follow-up user interviews provided a great opportunity to re-evaluate the features and refine our ideas.