CMPT363 User Interface Design

Project Part 1

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Part 1a. Heuristic Evaluation Report

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| #: 1 | Problem/Good: Usability Problem |
| Name:  Blurring is not supported | |
| Relevant heuristic:  Help users recognize, diagnose, and recover from errors | |
| Evidence of issue:  图形用户界面, 应用程序  描述已自动生成 电子计算机  描述已自动生成 | |
| Detailed explanation:  The search function does not support fuzzy search and correction of user input errors. As an example, the system does not detect a letter error in the keyword and cannot give the correct result. | |
| Severity or Benefit (minor, major, critical):  major  Justification: This is a major problem. Users may mistakenly think that the result does not exist because they cannot search for the correct result they want. Searching for non-existent results can result in users not getting the guidance they need, clouding their judgment. | |
| Possible solution and/or Trade-offs:  There are two possible ways to solve the problem.  1. Support fuzzy search in the search function, the system will pop up all the results similar to the user input.  2. Prompt the user that the input may be wrong and ask the user to verify all the keywords entered. | |

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| #: 2 | Problem/Good: Usability Problem |
| Name:  Cannot click on the address directly to jump to the map | |
| Relevant heuristic:  Flexibility and efficiency of use | |
| Evidence of issue:  屏幕的截图  描述已自动生成 | |
| Detailed explanation:  This page contains the restaurant's general location information, but users who want to go there cannot do so based on the general location alone. Clicking on the address information does not display detailed address information (exact: door number), nor does it take you to the room finder function. This violates the "Flexibility and efficiency of use" principle because it does not allow for faster user interaction. | |
| Severity or Benefit (minor, major, critical):  minor  Justification: This is a minor issue because the user can still get the exact location by typing the name of the restaurant into the room finder function. Before doing so, return to the main screen and select the room finder function. | |
| Possible solution and/or Trade-offs:  The system may automatically jump to the room finder function after adding a user clicks on the address message to provide the user with the exact location directly. | |

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| #: 3 | Problem/Good: Good Usability |
| Name:  Mark the day's opening hours in the list | |
| Relevant heuristic:  Flexibility and efficiency of use | |
| Evidence of issue:  图形用户界面, 应用程序, Teams  描述已自动生成 | |
| Detailed explanation:  In the list, the opening hours of the day are shown below the name of each restaurant. A smaller font than the restaurant title is used, and the color is darkened. | |
| Severity or Benefit (minor, major, critical):  critical  Justification:  This benefit is critical. Even novice users can get very straightforward access to the opening hours of the restaurants they need to target. They can quickly get the information they want without further manipulation, and this design can greatly improve the efficiency of users. | |
| Possible solution and/or Trade-offs:  Takes up display space and will reduce the number of restaurants displayed in the list in a single page. | |

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| #: 4 | Problem/Good: Good Usability |
| Name:  The list is sorted by first letter | |
| Relevant heuristic:  Match between system and the real world | |
| Evidence of issue:  屏幕的截图  描述已自动生成 | |
| Detailed explanation:  Each campus in the list is sorted separately in order of initial A to Z. | |
| Severity or Benefit (minor, major, critical):  major  Justification: This benefit is major. Because it follows real-world conventions, making information appear in a natural and logical order. Reduces the difficulty and learning cost for users to get started. | |
| Possible solution and/or Trade-offs:  If the first letter is relatively far down in the alphabet, you will need to page down frequently, increasing your search time. | |

Summary of heuristic evaluation reports

Evaluating Steps:

1. Define myself as the evaluator and navigate the interface of the dinning function in the SFU Snap APP several times.
2. This evaluation is mainly for SFU Snap users.
3. Inspects the list in the dinning feature and all subsidiary entries, and then compare it to Nielsen's 10 user interface design heuristics.
4. The evidence(photos) all collected from SFU Snap APP.
5. Fill the main finding with Usability Aspect Report.

Main Findings:

Through a heuristic review of the dinning feature from SFU Snap APP, 2 heuristic problems and 2 good designs are founded followed by Nielsen's 10 principles. Overall, the dining system and function are fairly solid, stable, and full featured. However, it is not particularly friendly to inexperienced users due to some flawed features (heuristic problem 9) and some features in the interface could be improved (heuristic problem 7). For its good design aspects, the good visibility of the system state (heuristic 7) and the better interface layout logic (heuristic 2) compensate for some of the shortcomings of the functional complexity.

Hardware: iPhone 13 Pro Max IOS version: iOS 16.0.2

Network: Ethernet via Wi-Fi Software version: 2.14 (116)

Test Date: Sep. 23rd, 2022

Context identification:

1. When/Where: Users who in SFU when they want to explore dinning feature to looking for a restaurant in SFU.

2. Who: Novice users who are not familiar with the functionality of the application.

3. What: Some features need to be improved or added.

4. How: Add or modify features to make it easier for novice users to get started and improve efficiency.

User identification:

1. New users of SFU Snap are in need of finding a restaurant, but they don't recall the name of the desired restaurant.

2. Long-term users of the app who are looking for a restaurant location for the first time are having trouble doing so because of how comprehensive these pages are.

Two Functional Requirements (FRs):

1. For usability problem 1, fuzzy search should support in the search function, the system will pop up all the results similar to the user input. When the user enters a fuzzy keyword, a list of results similar to or matching the keyword should be displayed below the search box.
2. For usability problem 2, the map should be displayed below or jump to a new window after the user clicks on the address information. In case of jumping to a new window display, a button to return to the previous page should be set in the upper left corner.

Sketch of functional Requirement No.1

文本

中度可信度描述已自动生成

The real searching words will be: “Blenz Coffee.”

Using "Blanz Cafe" as a fuzzy search term for the simulation, the system should list all coffee-related restaurants in a most-similar to not-so-similar ranking.

Sketch of Functional Requirement No.2

图形用户界面

描述已自动生成

Clicking the Back button should immediately return to the screen on the left.

Click Operation

Two Non-Functional Requirements (NFRs):

1. A non-functional requirement associated with functional requirement #1 is to improve the accuracy of fuzzy search, you should add some hints in the column, such as "Please enter the name of the restaurant or words related to it". Because it is possible that the name of the restaurant is too long or complex, the more data the search function can provide to the user, the more likely the user will get accurate target results.
2. A non-functional requirement that associates with functional requirement #2 for the purpose of Aesthetic and minimalist. Only one back button is placed on the entire map page, providing the user with the ability to go back to the previous page.

Next Step:

Create design solutions:

1. Deicide what kind of fidelity prototype will develop based on resources.
2. Use the prototyping app such as Balsamiq to create a few prototypes.
3. Write description documents for LFPs.

Evaluate designs:

1. Self-assessment of the designed prototypes.

2. Find two classmates conducting Aid Evaluation Prototypes.

Low-Fidelity Prototypes

LFP#1:

图形用户界面, 文本, 应用程序, 聊天或短信

描述已自动生成 图示, 形状

描述已自动生成

First, new text has been added to the search box to prompt the user what to enter for the purpose of searching. The prompt words satisfy NFR#1 and help improve the accuracy of the user when performing an ambiguous search.

By adding a fuzzy search function to the backend of the software, users can get a list with the results they want without having to enter the exact restaurant name into the search box, allowing them to make their own choices.

The search result list still maintains the two advantages of "mark restaurant hours" and "sort by first letter in descending order".

LFP#2:

图片包含 图形用户界面

描述已自动生成 图片包含 应用程序

描述已自动生成

When the user clicks on the address, the system will automatically jump to the map page, display the map and mark the target restaurant on the map for the user to go to the exact location.

In the map page, only a Back button to go back to the previous page is set to meet the needs of NFR#2 to ensure that the page is Aesthetic and minimalist.

References

Nielsen, J. (2020, November 15). *10 usability heuristics for user interface design*. Nielsen Norman Group. Retrieved October 14, 2022, from https://www.nngroup.com/articles/ten-usability-heuristics/