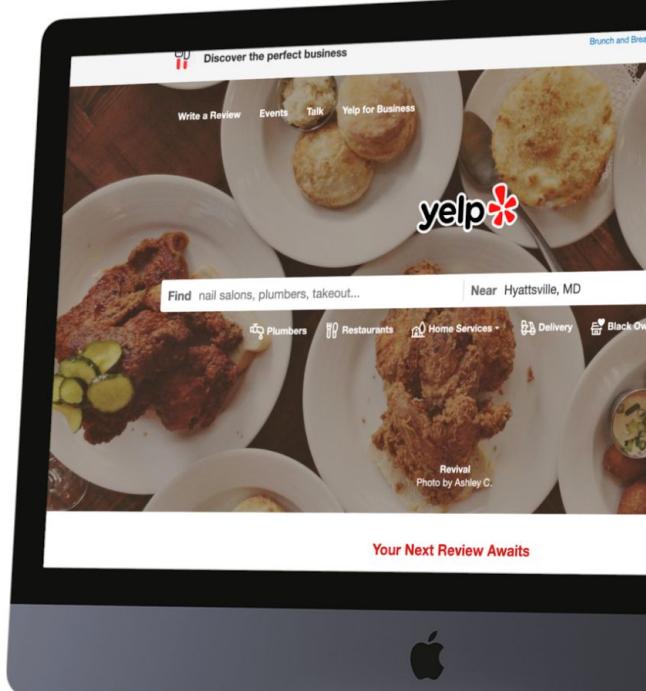


Yelp Usability Test & Redesign

This study aims to identify the pain points in Yelp's business discovery user flows on a desktop web browser, specifically focusing more on the search and filter feature.

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Introduction

- Established in 2004, Yelp is a crowdsourced local reviews app – users can review and judge other businesses using existing users' reviews.
- The local business can utilize the Yelp app to register themselves and the services they provide so that users can quickly discover and rate those businesses.
- The app's mission is to connect people with great local businesses; by doing that, they hope to improve the lives of the users and business owners.



Introduction

- I am very fond of the Yelp website, and I use it almost every month to satisfy my food cravings.
- So, I chose to look at Yelp to locate some points of improvement for the platform based on user feedback.
- Sometimes, Yelp's system becomes hard to use because of its low discoverability of valuable features.
- Also, I felt that it would be interesting to understand the level of challenge in the user flows.



Project Vision

Objectives

- To understand how users discover and evaluate businesses on Yelp and how they use Yelp's filters to do so, if applicable.
- To identify the pain points by using filters and ratings to refine search results.
- To test the effectiveness, error tolerance, efficiency, and ease of using the search and filter feature and whether the results are relevant to the user's search.

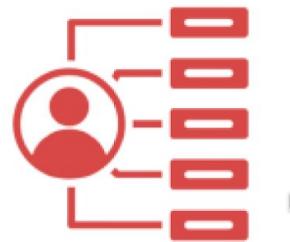
Research Questions

- What kind of search activities do participants use to find businesses? (e.g., keyword searches, filtering, tabs, etc.)
- How do the participants find the filter options once they fire the search?
- What is confusing or frustrating about the filters and rating metric within the experience, if applicable?

Design Process



Research & Analysis



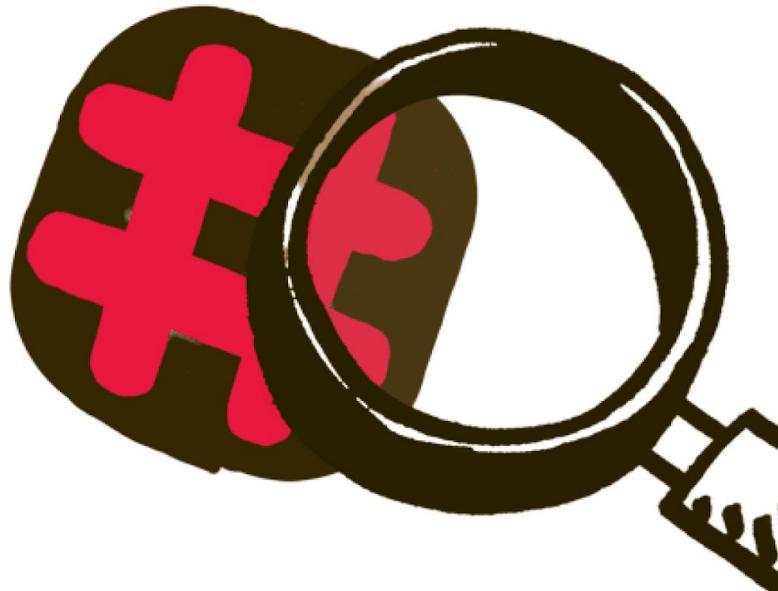
Define & Ideate



Design

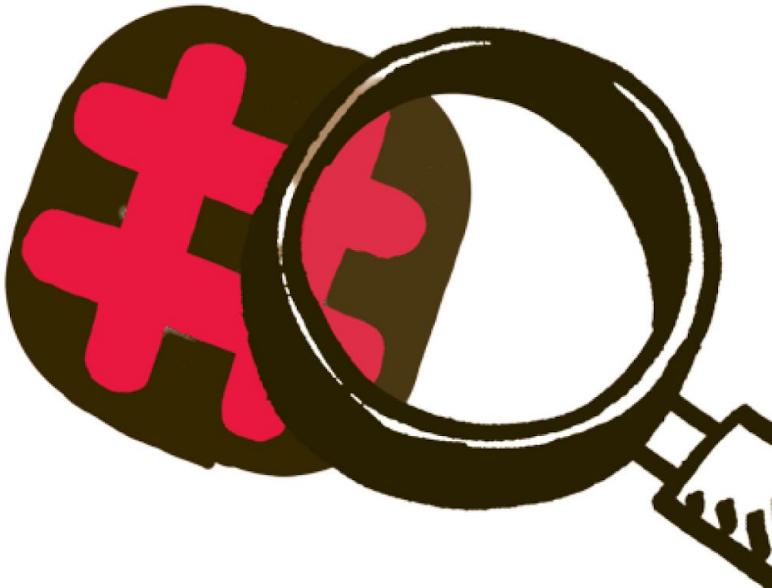
Heuristic Evaluation

- Heuristic Evaluation is a usability inspection method that contains a set of principles or heuristics that helps unearth issues that might occur when users interact with products.
- Justifying the problems based on set heuristics helps focus on usability, thus eliminating the subjectivity or bias in a usability evaluation.
- I leveraged Ben Shneiderman's Eight Golden Rules of Interface Design because it is one of the leading frameworks in the field of HCI.



Heuristic Evaluation

- These heuristics provided a higher level scope than other frameworks, and they help in focusing on the core tenets of usability that can make or break the user experience.
- I believe that Ben Shneiderman's Eight Golden Rules is well suited for testing the individual components of the website.
- I also think that using this heuristic set would help unearth many usability issues in the Yelp website.



User Research: Participants' Information

- For this study, I focused on observing existing semi-frequent users and brand new users of Yelp as I believe that a new set of eyes will uncover many issues.
- As Yelp has a huge user base, I wanted the interface to appeal to those already using it, so I will also include current users since it wouldn't make sense to alienate existing users to woo new ones.
- I did not choose power users (frequent users of an app) as their experience would differ from an occasional user.
- Also, I followed industry best practices and ran my study on five users (the Nielsen Norman Group points out that a sample of 5 users can uncover 85% of a website's issues).



User Research: Participants' Information

- The test base was divided into two types: one with Yelp accounts and one without.
- To eliminate the possibility of power users, those with Yelp accounts were users who had spent less than six months on the platform.
- Finally, for a hassle-free remote testing experience, I planned to test Yelp's website on desktops, not mobile devices.
- I also recruited some participants who have experience using Yelp's competitor products. Some of the competitors of Yelp are Google, TripAdvisor, Yahoo!, OpenTable, and Foursquare.



User Persona

I cannot try a new place without researching about it online!

Sam
Sales Manager

DEMOGRAPHICS

Age	38 years
Gender	Female
Location	California, US
Income Level	60 K
Marital Status	Married with 2 children

NEEDS

- 1 Needs to visit different places that are kid friendly
- 2 Needs to dine out with family and explore different cuisines atleast twice in a month
- 3 Wants to validate places that are reported as good

Behavior

- 1 Eats out atleast once per week after researching online
- 2 Visits different kinds of tourist places and is always in a look out for kid friendly destinations online
- 3 Tries different cuisines atleast once per month
- 4 Leaves reviews for businesses everytime

Frequently used tools

- 1 Google Search
- 2 Trip advisor

Moderated Usability Testing

- I chose moderated usability testing as it provided more significant benefits than unmoderated testing, such as clarifying ambiguities and asking users for more information about their perspectives.
- I chose this specific method to understand the end-to-end business discovery flow as the participants performed the timed tasks.
- This will help me collect qualitative and quantitative data about the workflow, thus paving the way for unearthing the critical issues in the user journey.



Moderated Usability Testing

It took users between 30 and 40 minutes to complete the usability test. I followed the template below for all five usability test sessions.

Introduction : 2 minutes

The introduction explained the participants' rights, roles, and responsibilities. Also, it included a short series of warm-up questions to build a rapport with the participants.

Tasks: 20 – 25 Minutes

The task list guided the participants through a series of use case scenarios. In this portion, I collected data on time spent completing the tasks and the success rate, but the additional data came from 'think aloud' comments provided as feedback.

Post-Test Questionnaire:

5–8 Minutes

Following the tasks, I asked the participants several post-test questions about Yelp's usability and experience.

Recruiting Users

- I contacted some followers of Yelp, Open Table and Yahoo on Reddit and some new active group members of Yelp in Quora to gain consent for their participation in the usability study.
- I initially sent the screener survey to around 12 members who seemed interested and responsive to taking part in the study.
- After receiving the responses to the survey, I filtered participants who were brand new and semi-frequent users of Yelp and sent the below invitation mail so that they could select a suitable time for them to attend the usability study and to gain their consent.



Preparing Test Script & Task List

- While I was waiting for the participants to fill out their availability information, I prepared the usability test script and task list for the test session.
- The test objective was to measure the following:
- Can the participants correctly enter the search criteria in the correct fields?
- Once they find the initial search results, can the participants refine them further using the available filters?
- Can they edit the search criteria and filter fields to acquire the targeted results when they cannot find the apt search results?
- Can the user understand the critical information on the business information page upon finding the targeted results? Are they able to scan reviews and learn more about the business?
- Can the users quickly identify and use other advanced features like saving favorite restaurants, posting reviews and photos, etc.?

Performing the test

To perform the usability test, the following equipment and test environment were required: an internet-connected laptop or desktop computer with camera capabilities, zoom software with permission to share screens, a note pad for the facilitator, usability test scripts, access to a power source.

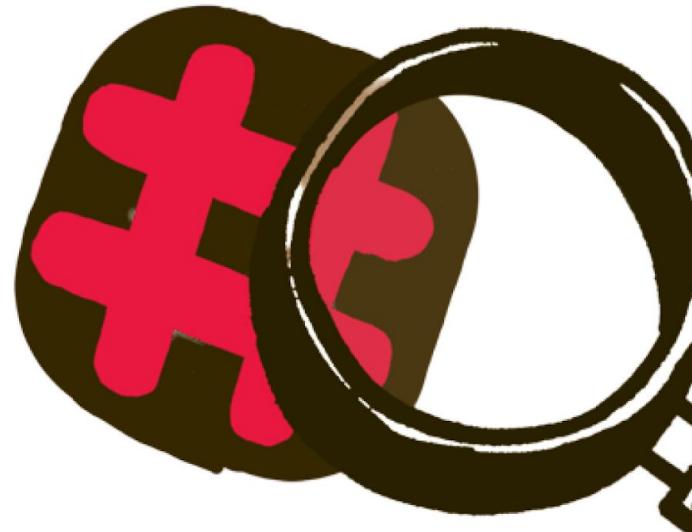
Analysis

Qualitative Measures

- The comments from the participant's 'think aloud' action
- Observation of the participant's performance of the tasks
- Observation of the errors made by the participants while doing the tasks
- Observation of the participant's feedback when navigating to pages on Yelp
- Observation of the participant's response to follow-up questions
- Any other responses and questions prompted by the participants

Quantitative Measures

- Task success performance metric
- Responses to post-test question



Analysis

Task Success usability metric

I selected the task success rate because it is simple and straightforward. Moreover, I felt that it is an essential measure of usability, as users are expected to be able to discover, filter, and sort Yelp results effectively. Thus, everything else is irrelevant if the users can't accomplish the primary tasks. Therefore, I used the task success metric for this purpose.

	User 1	User 2	User 3	User 4	User 5	Average
Task 1	1	1	0	1	1	80%
Task 2	1	1	1	1	1	100%
Task 3	1	1	1	1	1	100%
Task 4	1	1	1	1	1	100%
Task 5	1	1	1	0	0	60%
Task 6	1	1	1	1	1	100%
Task 7	1	1	1	1	1	100%
Task 8	1	1	1	1	1	100%
Task 9	0	1	1	1	1	80%
Task 10	0	1	0	1	1	60%
Average	80%	100%	80%	90%	90%	88%

Findings

1. Confusion with search bar

Some of the inexperienced Yelp users could not identify the presence of two separate search fields and correctly entered the name of the business in the first search field but failed to change the location after previous tasks. Some entered both the location and business name into one bar. This resulted in incorrect search results.



2. Too many sponsored results

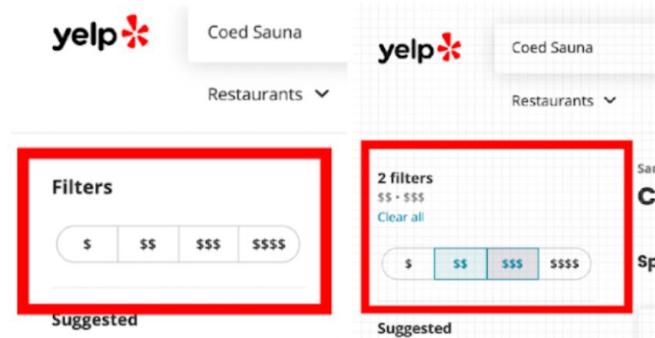
Nearly three out of five users expressed frustration and confusion when seeing sponsored search results that did not match their keyword or filter selections. One of the participants commented, "This is not Chinese! Why is it showing me this? And this place is nowhere near me. I think they are sponsored, but that's weird."

A screenshot of a Yelp search result page. At the top center is the text 'Sponsored Results ⓘ'. Below this is a listing for 'The Portofino Restaurant'. The listing includes a small thumbnail image of food, the restaurant's name, its rating (4.4 stars), the number of reviews (452), its cuisine type (Italian), and its location (Crystal City). It also shows that it is open until 10:00 PM, has an option to make an online reservation, and is 9.4 miles away. A quote from a review is displayed: "Fantastic restaurant! My wife and I were walking around Crystal City last night on a spontaneous date, and thought we'd try Portofino for some simple appetizer and dessert. They were..." followed by a 'more' link. At the bottom of the listing are buttons for 'Outdoor dining', 'Delivery', 'Takeout', and a 'Check Other Times' button.

Findings

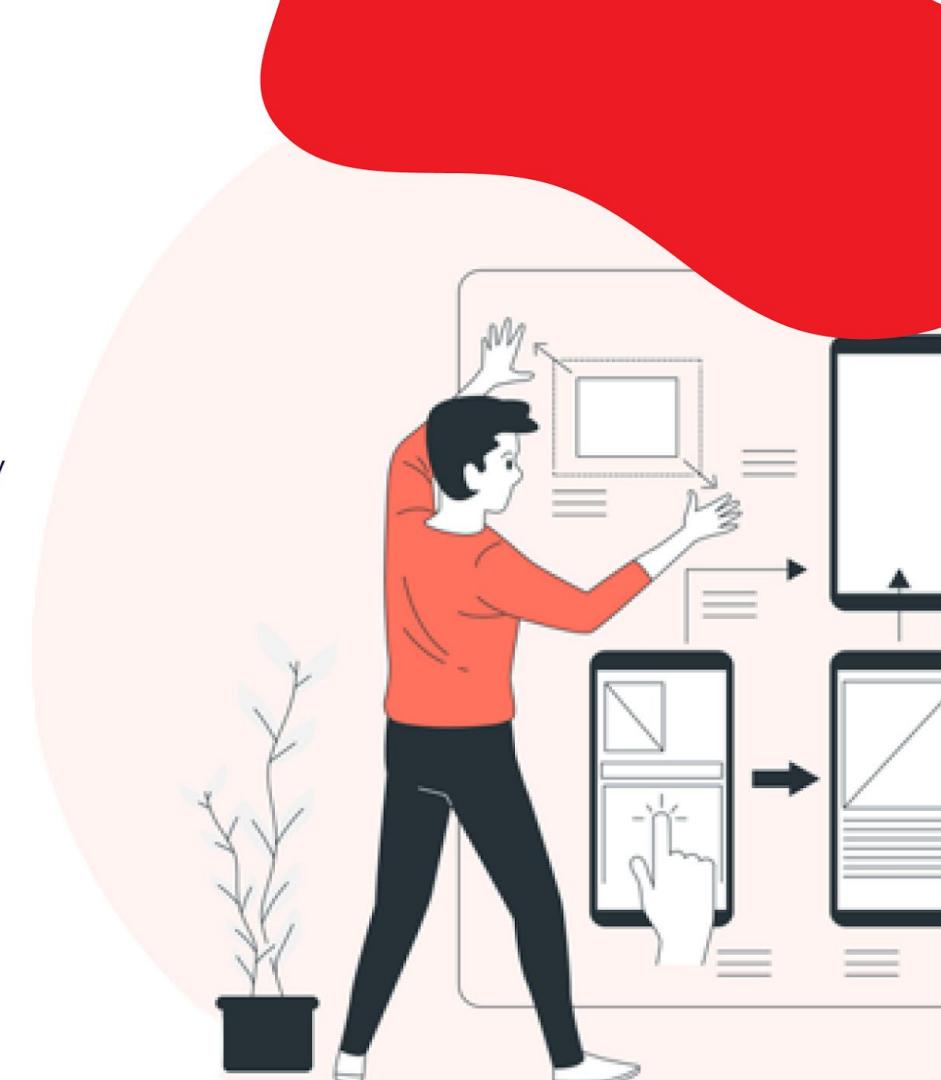
3. Price categories weren't clear

- Task 1 stated that they needed to find restaurants that cost 20 dollars per person.
- When trying to refine the search based on the cost, they failed to do it because they did not identify this option on Yelp.
- There is an option to select the price range on Yelp, which is designated by a \$ symbol.
- The users weren't sure what the dollar signs meant because they did not even have a 'price' label. Instead, it just says Filters.
- Few expressed concerns about the 'relativeness' of the dollar signs.
- It was unclear to participants whether the dollar signs represented the overall cost of the menu or the cost of the most expensive item.



Redesign

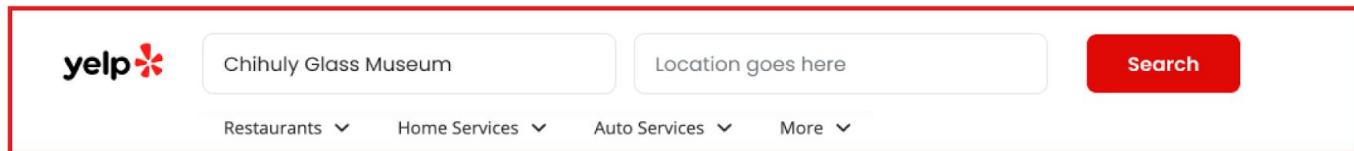
- Search, and filters are a big part of the business discovery process that Yelp is famous for.
- They have added a great set of filters that help users refine the search process.
- However, due to the lack of visibility of these filters, many users failed to find them and even commented in the satisfaction questions that they need a better filtering system.
- So, I suggest the following changes in the user interface for better user experience.



Redesign

1. Search bar confusion fix

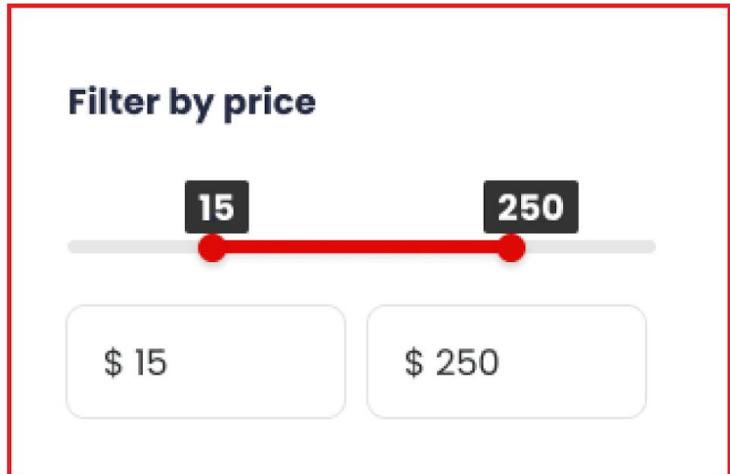
- There were user errors in the search bar because they did not understand the distinction between two search boxes with different purposes.
- This is because of the consistent and horizontal look of the search boxes.
- A simple solution is to have these two search fields with proper labels in separate rows with a large labeled search button.
- Doing so would draw attention to the fact that the fields are different and prompt the user to fill them out separately



Redesign

2. Price filters fix

- The entire price filters must be labeled as 'Price Filters', and each symbol like \$, \$\$, \$\$\$, and\$\$\$\$ must have a description indicating the price range they denote.
- Additionally, an absolute price range for food would be appropriate instead of just dollar signs.
- To eliminate any confusion regarding the relative affordability of a restaurant, it would be beneficial to offer an option like "Entrée \$10-\$15".



Takeaways

- Yelp was not very hard for the participants to use, but some minor quirks made the user's experience more complex than expected. Improvements to the site include a robust filtering system where the users can search by stars, adjust the search based on their contextual location, etc.
- I learned that the usability evaluation method helps in identifying more real-time problems. In contrast, the heuristic evaluation method helps detect the minor issues that significantly impact the website's user experience.
- The usability evaluation testing results helped in understanding the significance of redesigning the interface. The content will be a lot easier to understand than the current website.
- For example, making dollar signs represent price ranges will make the new design accessible and inclusive for everyone.
- Throughout the usability testing of Yelp, I learned about what worked well and what could be improved.
- I successfully took on a challenge, researched it, applied the concepts learned in usability evaluation, and produced good results.
- I was initially overwhelmed about the challenge, but I relied on user research to guide my findings.
- I feel that I successfully utilized the HCI knowledge that I have gained so far and utilized it properly in the process that I followed.