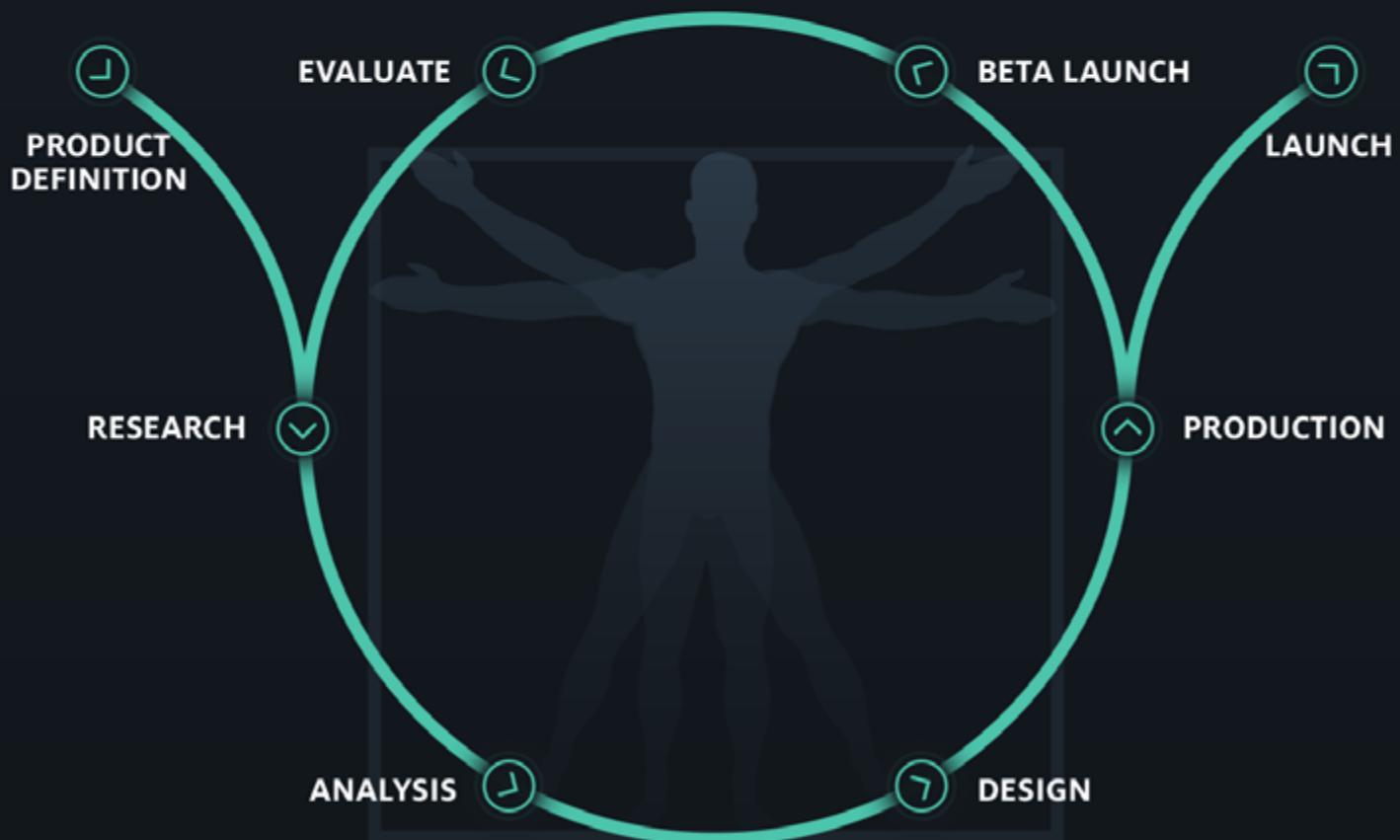




Optimal Workshop

User Testing and Design

Improving Yelp's Website





User Testing and Design

Improving Yelp's Website

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CHAPTER ONE

Introduction

A quick note from the authors

When it comes to usability testing, there is no magical combination of tactics that will create the perfect website. There are, however, a huge selection of tools that can be adapted for specific testing purposes. Moderated testing, unmoderated testing, remote, and on-location tests all have their time and place.

The bottom line is that it isn't so much about the types of tests, but the timing of them. Test early and test often. Define your hypothesis, pick several quantitative and qualitative methods, and get ready to start asking uncomfortable questions to get the most valuable insights.

In this book, we'll share a design framework that incorporates user testing, parallel design processes, and iterative design processes. To name a few, we've also included advice from usability experts like **Jakob Nielsen**, **Jeff Sauro**, **Donna Spencer** and others. We'll discuss basic concepts like how to turn business objectives into usability testing objectives. For more experienced readers, we dissect the specific tests, tasks, and design processes used by all three of our companies in the Yelp redesign exercise. Our hope is that it helps you see that usability testing is much more than just a list of requirements to be checked off.

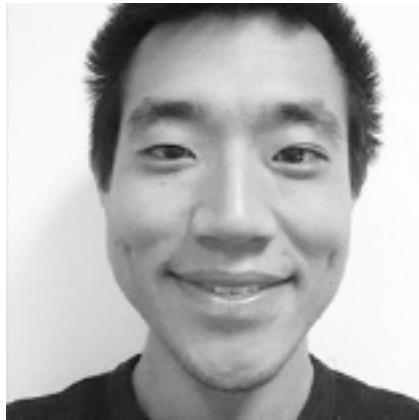
We'd love your thoughts on what we've written and the new Yelp design. And feel free to include anyone else in the discussion by sharing this e-book.

Happy testing & designing,

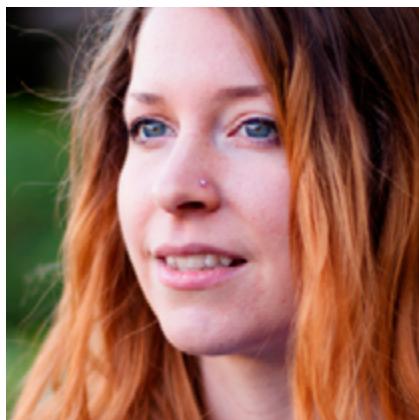
Jerry Cao, Chris Bank, Kathryn Reeves, and Hannah Alvarez



Chris Bank is the growth lead [@UXPin](#). He also led growth [@Lettuce](#) (acquired by Intuit), [@MyFit](#) (acquired by Naviance), and his own startup [@Epostmarks](#) (USPS strategic partner), and launched [@Kaggle](#) in the B2B tech vertical. In his downtime, he rock climbs, motorcycles, designs apps, travels, and reads. [Visit my website](#) and [Follow me on Twitter](#).



Jerry Cao is a content strategist at UXPin where he gets to put his overly active imagination to paper every day. In a past life, he developed content strategies for clients at Brafton and worked in traditional advertising at DDB San Francisco. In his spare time he enjoys playing electric guitar, watching foreign horror films, and expanding his knowledge of random facts. [Follow me on Twitter](#).



Hannah writes, edits, and plans content for [UserTesting](#). As a former non-profit professional, she's dedicated to making the world — and the web — a better place. In her free time, she likes making things and going on adventures.



Kathryn writes and edits content for [Optimal Workshop](#), with a focus on user research techniques, theory, and case studies. She's an avid follower of whatever's happening in the UX industry, and a total web junkie. You can contact her by emailing kathryn@optimalworkshop.com or tweeting @kathrynspybaby.

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CHAPTER TWO

An Overview of the UX Design Process

The Process Of Testing and Re-designing Yelp's Website

Designing a product is a long process that requires patience, subtlety, and the right resources to make it happen. But how do you know what's actually working? Is it when you think the design is attractive enough? Or when the VP finally signs off on your team's work? The truth is that the product works only when the users think it works.

When you're deeply involved with designing a product's user experience, it can become difficult to see things from an outside perspective. User testing helps you break out of that bubble. Through a joint effort, [UXPin](#), [UserTesting](#), and [Optimal Workshop](#) explain the UX process they followed for a hypothetical site redesign using Yelp as an example.

The screenshot shows the Yelp homepage with a search bar for "tacos, cheap dinner, Max's" and a location filter for "Near mountain view, CA". The main focus is the profile page for "Cascal". The page features a red star rating of 4.5 stars based on 2066 reviews. Below the rating, it says the restaurant is "\$\$" and "Tapas Bars, Spanish". There is a "Write a Review" button and links to "Add Photo", "Share", and "Bookmark". On the left, there's a map of Castro Street in Mountain View, CA, with a red pin marking the restaurant's location. To the right of the map is a grid of 12 food photos, including various tapas and sandwiches. A call-to-action button "See all 879 photos" is located at the bottom right of the grid. The overall layout is clean and modern, typical of a user-centered design.

Photo credit: www.yelp.com

To start the process, all three companies analyzed the business to define the right user segments and hypotheses to test. UserTesting recorded users interacting with the site while Optimal Workshop ran two usability studies using their tools. Based off the research insights, UXPin then redesigned the user experience.

As discussed in the [Guide to UX Design Process & Documentation](#), the design process can vary dramatically depending on the company. Below, we'll discuss the process we followed as well as those used by other successful companies.

How The Steps Are Connected

When it comes to the product design process, theory and practice are two very different things. We all know the basic tenets of user-centered design. We recognize different research methods, the prototyping stage, as well as the endless process of iterating. For us, we tried to stay comprehensive yet lightweight.

"When it comes to the design process, theory and practice can be two very different things."



Before we go into detail, it might help to take a quick bird's-eye view. Here is a practical explanation of how every step of our redesign process ties together:

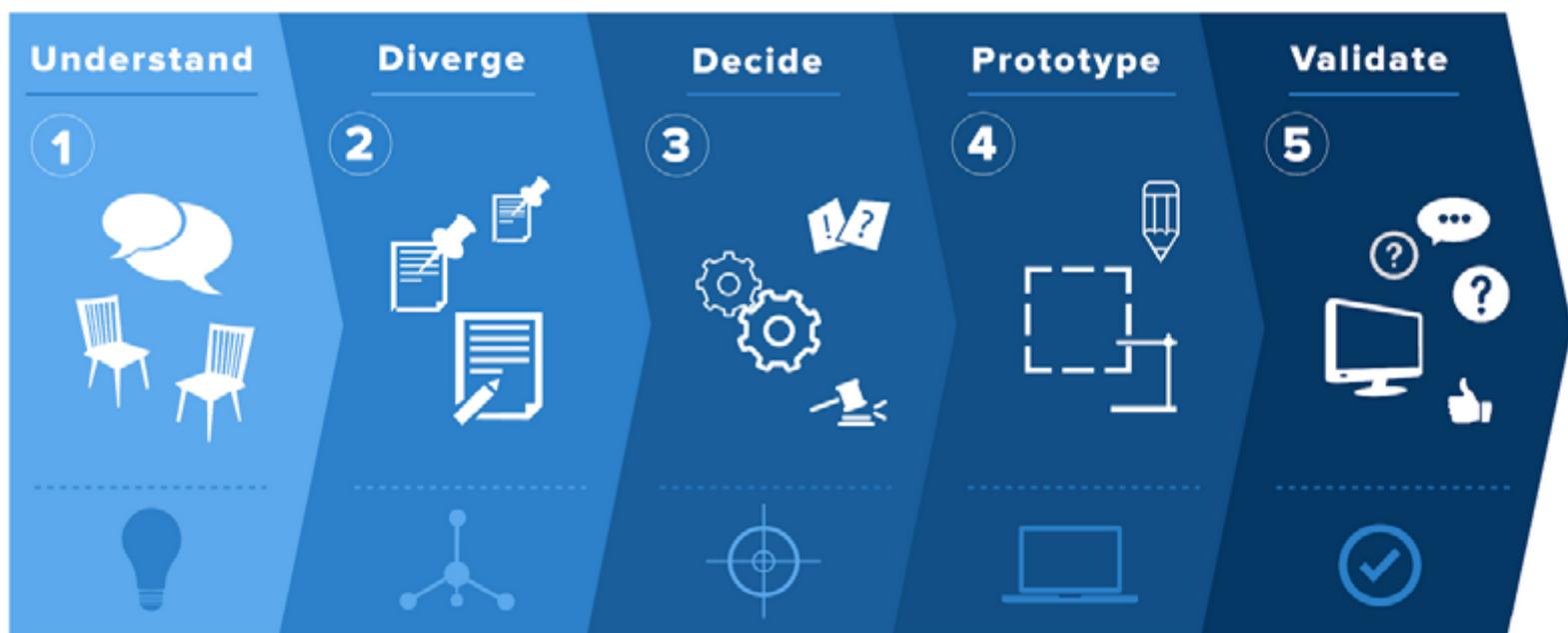
1. During the initial phase of **product definition**, we sketched the business onto a Lean Canvas to get a quick understanding of its value proposition, unfair advantage, and overall business model. The end goal of UX improvements, after all, is to increase revenue. We determined that Yelp succeeded in user acquisition and growth, but that it may be interesting to examine what might improve frequency of use. We drafted an overall plan for testing semi-frequent users.
2. Moving into **research**, we filled in the details of the test plan and moved forward with unmoderated sessions. We defined the demographics for users and detailed specific tasks. We used a variety of testing techniques ranging from analyzing films of users interacting with the site, to remote card sorting and first-click testing.

3. In **analysis**, we extracted design learnings from the raw user data. To name a few insights, we learned that semi-frequent users relied heavily on the Search bar, didn't notice the Events tab, and felt the pricing options (\$, \$\$, \$\$\$, \$\$\$\$) were unclear. We also discovered that people don't use most of the search filters, and that finding a link on the homepage takes users more than 10 seconds. Based on the profile of our testers and their feedback, we created task matrices to plot out each step needed to accomplish their goals.
4. To initiate the **design** phase, we reviewed live pages and started sketching concepts. Once we narrowed down our 5-10 sketches to 2-3 top contenders, we moved into [UXPin](#) for collaboration between all 3 teams. Starting with low-fidelity wireframes, the UXPin team would iterate and gather feedback until a high-fidelity prototype was developed. In the [Guide to UX Design Process & Documentation](#), we describe how these early designs can serve as documentation for the product team.
5. **Iteration** was less of a standalone phase than a connecting stage between each step of design. Comments were tracked in UXPin, and the redesign was iterated until we felt that all critical issues had been resolved. Our design sprint was short, so we strived for improvement, not perfection.

Guiding Principles for the Design Process

Now that you've seen how each stage is connected to each other, let's look at each stage in detail. Our overall process best resembles a design sprint, which are 1-3 week hyper-focused projects that focus on solving only a couple of design issues.

DESIGN PROCESS



Based on: [Conduct Your Own Design Sprint](#)

Alok Jain, UX Lead at 3Pillar, believes the three key elements to design sprints are [collaboration, reduced handover friction, and team focus](#). Because we moved quickly between each stage, we built momentum and minimized waste. Our goal in this project wasn't just to redesign a website, but to do so in a cost-effective and time-efficient manner. An extremely lean version of the complete cycle [can be found](#) here, but we'll describe below how we applied this thinking.

I. KICKOFF & PRODUCT DEFINITION

Our kickoff process was fairly lean. Instead of heavy documentation, we looked at the business model through a UX lens. Which user segments had they succeeded in capturing, and where might there be room for improvement? We

found that over-communication, fewer meetings, and complete involvement of all team members (including the UXPin CEO) was most helpful.



Photo credit: Rishu83. Creative Commons

UX consulting firm Above the Fold believes that involving stakeholders as early as possible is the key to [preventing people from breaking off into their own bubbles](#). Since UXPin CEO Marcin Treder was responsible for redesigning the site, he was involved even in the Lean Canvas project. Although the user testing insights would be the main motivation behind the redesign, we wanted him to have a “primary source” understanding of why this project was even initiated. Even though he would soon be buried in design details, he still needed to think about the big picture.

As a first step, **Amazon** actually forces its product team to draft an [internal press release for the finished product](#). This approach helps to work backwards

from the customer, rather than trying to bolt customers to an idea. While we didn't draft a press release, we did follow this customer-first approach by using the Lean Canvas to explore how Yelp's features solve customer problems. From there, we identified semi-frequent users as an untapped segment, laid out their problems, and mapped out tests to their most important tasks.

II. TESTING & ANALYSIS

When it came time to define our testing criteria, our primary goal was limiting our user tasks to the most crucial features. We defined these important tasks as looking up businesses to find specific information, finding a business based on specific parameters, finding a business without specific guidelines, and searching for support content. Because Yelp's demographic is broad, our test participants were not selected based on age, income, gender, or location.

The screenshot shows the UserTesting.com platform interface. At the top, there is a navigation bar with the 'User Testing' logo, followed by steps: 'Choose Participants', 'Select Tasks', 'Launch Web Test', and '3 users'. There are also 'Save' and 'Share' buttons. Below the navigation, the main area is titled 'Tasks & Questions' with a sub-instruction 'What participants do as they're recording the video'. On the left, there are two sections: 'Tasks' (listing 'Blank Task', 'Popular Tasks', and 'Five Second Test') and 'Questions' (listing 'Verbal Response', 'Multiple Choice', 'Rating Scale', and 'Written Response'). The right side displays two task cards. Task 1 is titled '1. ✓ Task' and describes a scenario where participants need to reserve a private dining space for 15 people at an Italian restaurant with a specific budget. Task 2 is titled '2. ✓ Task' and asks participants to find bars or lounges for a friend's birthday party. Both tasks have checkboxes for 'Ask the participant if they completed the task successfully' and 'Ask the participant to rate the difficulty of this task'. There are also 'Blur this task to collect PII' buttons and edit/delete icons for each task card.

Photo credit: www.usertesting.com

UserTesting explains that one of the core principles of usability testing is [conducting broad and specific tasks](#). Open-ended tasks let you learn about how users think, while specific tasks pinpoints areas of frustration. In all of our testing tactics, we followed these principles:

- **Rewrite everything** — To make the most of our test participants' time, we revised the instructions multiple times so the language was as concise and actionable as possible. This is mandatory for unmoderated remote tests since the written instructions are the only directions for test participants.
- **Run a pilot test** — Once we finalized the instructions, we ran an unmoderated remote test with one user from our testing group. The test participant also provided feedback on the instructions so we could make minor tweaks to ensure complete clarity.
- **Follow up tasks with relevant questions** — For each task, we asked the test participant if the task was completed and the level of ease or difficulty. The first question lets us know if the task is feasible, while the second question lets us dive deeper into possible design improvements.
- **Avoiding leading questions** — We wrote questions like “How easy or difficult was it for you to complete this task?” instead of “How difficult was it to complete this task?”. It’s a subtle difference that prevents bias in the answers.

*"Open-ended tasks shows you how users think.
Specific tasks pinpoints areas of frustration."*

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To gather qualitative and quantitative data, we ran three remote usability tests with a minimum of 5 people. With our data in hand, we followed a [forced](#)

[ranking procedure](#) in which we mapped out the ease of each task. Once we saw the pain points, we developed sample task flows emulating the steps taken by each user based on the current design. We analyzed the task flows, identified usability gaps, and refined the task flows accordingly. These improved task flows served as the functional guidelines for our redesign.

III. DESIGN & ITERATION

During the design stage, we followed an approach similar to the [last few steps of the Google Ventures design process](#). Our walls were filled with tons of quick-and-dirty sketches drawn by UXPin CEO Marcin Treder. All three teams then voted on the top 2-3 sketches. To prevent design by committee, Marcin had the final say regarding which sketches would progress into wireframing and prototyping with UXPin. **Glen Lipka, VP of User Experience at Marketo**, advises that a [consistent UI is better than a perfect UI](#). We incorporated this overall into our process since consistency breeds familiarity, and familiarity encourages more usage (thereby converting semi-frequent users into frequent users). Below, we've listed a few guiding principles:

- **Design for information** — People use websites not to admire beautiful designs, but because they want the content. In our case, Yelp is essentially a search engine for business reviews, our redesign needed to better deliver the right information to the right people, and testing the IA with card sorting was an integral part of this.
- **Follow the MAYA principle** — While we wanted to deliver a better experience for semi-frequent users, we didn't want to create something so foreign that it would alienate power users or confuse new users.
- **Research UI Patterns** — Even though we were redesigning, we didn't need to start from scratch. That being said, we didn't want to just drag and

drop a template. We looked at existing UI patterns from other prominent sites (and from the [Web UI Kit](#)) to find what could be repurposed for new life.

- **Make it usable and fun** — The experience for semi-frequent users needed to be less confusing, but not more scholastic. For our purposes, we wanted to preserve Yelp's fun look and feel.

"Consistency creates familiarity. Familiarity encourages product usage."



In between each stage of design from sketching to wireframing and eventually prototyping, all three teams collaborated and commented within UXPin. Iteration was the common thread throughout each design phase. **Cennydd Bowles, Design Manager at Twitter**, provides a rough guideline in which the product team should [research two iterations ahead, design one iteration ahead, and review the previous iteration](#). Because our design sprint was fairly simple, we didn't need to research multiple iterations ahead. We did, however, reference previous versions and keep an eye towards the next iteration.

Our ultimate goal was to get to the “local maximum”. Similar to [Spotify's product development process](#), we decided the project was complete once we realized the costs would outweigh the benefits of additional iteration. Given the time limitation of our design sprint, we didn't obsess over seeking out the “global maximum”.

Objective Processes In a Subjective Environment

When it comes to the product design process, there is no magic bullet. Almost all companies that use products and services from [UserTesting](#), [Optimal Workshop](#), and [UXPin](#) use bits and pieces of the tactics described above.

While product development and UX design are highly subjective spaces, your processes don't need to be. The end goal of a product is revenue, and there's nothing subjective about that.

Whether the process is lightweight or more detailed, get the ideas out of your head and in front of your team. The design process is a compass for the product, not rules carved in stone. Some of the stages we discussed may happen in slightly different order or even parallel, but they all provided a method to the madness.

"The design process is a compass for the product, not rules carved in stone."

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CHAPTER THREE

Understanding Your Business Before Testing

An Overview Of the Product Definition Process

Before you start improving the UX, you must first understand the business. What problems does it solve, and how does it make money? Where has it been successful, and where could it improve?

As described in the [Guide to UX Design Process & Documentation](#), this first step is the “Product Definition” phase since we dissect the business model, determine which UX improvements are necessary, and then define our hypotheses and testing plan.

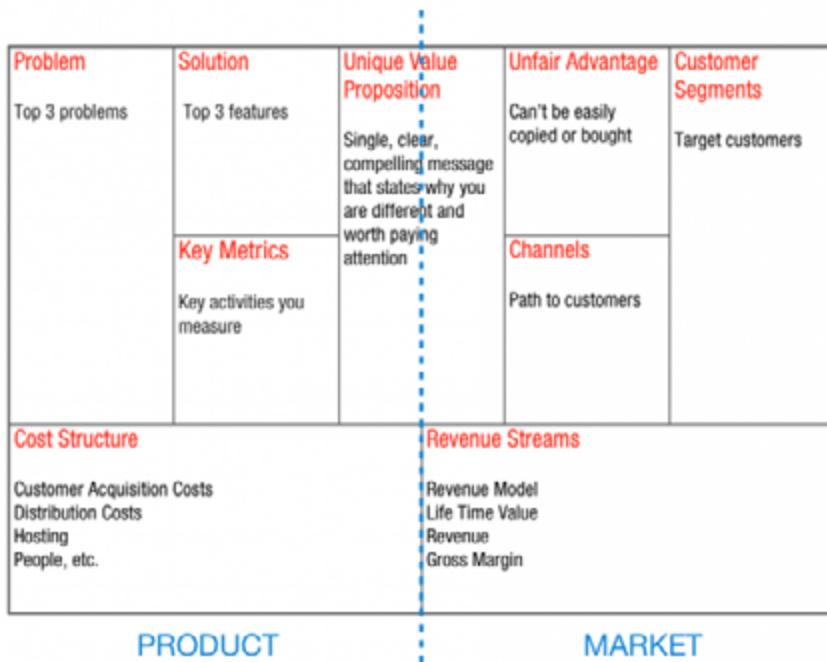


Photo credit: Innovation Lab. Creative Commons.

Below, we'll explain how to deconstruct a business using a lean framework, determine the right user segment and questions, and finally decide the high-level user scenarios and appropriate tests.

Deconstructing the business

We chose the Lean Canvas for the first step of our Yelp redesign exercise because it's a lightweight yet comprehensive visualization of how a business operates. For our purposes, the Lean Canvas was a great way of getting actionable insights with minimum paperwork.



Lean Canvas is adapted from The Business Model Canvas (<http://www.businessmodelgeneration.com>) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

Photo credit: Ash Maurya. [Creative Commons](#) via Wikimedia Commons

Invented by **Cloudfire CEO Ash Maurya**, the Lean Canvas dives straight into the heart of businesses by focusing on customer problems, proposed solutions, and success metrics. Because Lean Canvas is mostly used for startups to sketch out their business ideas, we adapted the canvas for a large successful business like Yelp. We won't bore you with all the documentation, so let's look at how you might complete this for UX purposes with Yelp as an example:

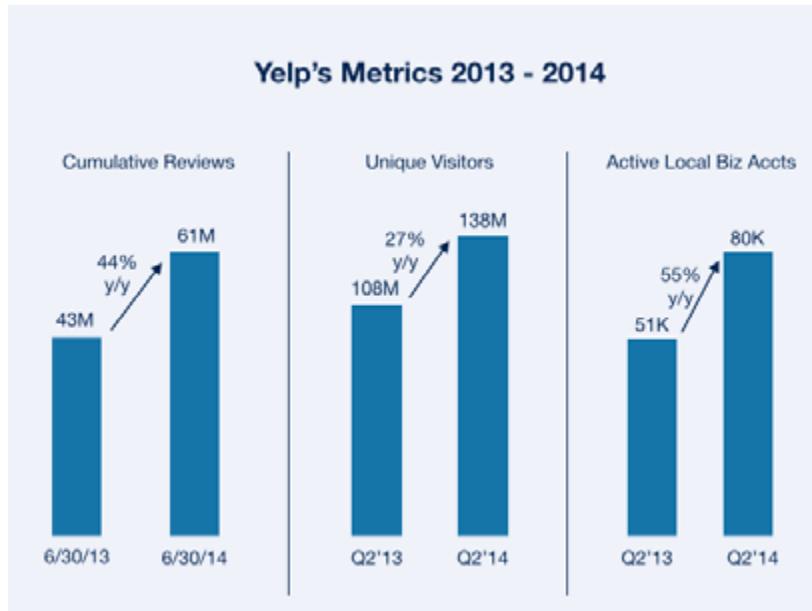
- **Top Problem** — People in a certain town need to know the [best/fastest/cheapest/easiest] [food/service].
- **Top 3 Features** — User reviews, activity stream, search based on geography/category.

- **Unique Value Proposition** — Allow users to list businesses, add reviews, and see businesses recommended by friends and other users.
- **Unfair Advantage** — Network effects of having a large user base.

Business Insider concludes that one of Yelp's defining success factors [is its „network effect”](#). Users write reviews, which encourages more reviews and new users, creating a viral loop that leads to Yelp dominating the local business listings. At that point, Yelp has enough users to be financially attractive as an advertising platform. While its top three features all work together to help reach that critical mass, we decided the most critical features are the search function and the information architecture. If people can't find what's relevant, they won't write reviews, which of course won't encourage others to contribute. Our redesign would need to better organize and direct people to the information they wanted.

Turning Business Insights Into User Testing Objectives

Now that we knew the desired outcome of the redesign, we needed to determine which users should benefit. Was it new users? Power users? Or people who used it once in a while? To find the answer, we examined who could have the most business impact.



Based on data from Yelp Q2 2014 Report

Looking at [Yelp's numbers published on its website](#), we see that acquisition isn't much of an issue with over 138 million monthly unique visitors and 61 million local reviews as of Q2 2014. More importantly, Yelp is [finally profitable](#) and growing at an impressive rate with reviews increasing 44% year-over-year and unique monthly visitors increasing 27%.

Because the business already enjoys a massively growing user base, we decided that frequency of use and user retention would be a more interesting area to explore. Our target segment, therefore, would be semi-frequent users. **Neil Patel, CEO of QuickSprout**, advises that the key to user retention is the "[Speed to Aha](#)" — the speed at which new users decide to become power users because they feel the truth of your promises. For him, adding or subtracting features can add to product value. With that in mind, we decided the right questions to ask were:

- What features do people use when choosing a restaurant? (e.g. photos, ratings, etc)
- Can users choose a restaurant based on several specific criteria?
- Do users know how to save and retrieve items?
- Can users find out if a specific location is open at a given time?

By exploring the above questions, we hoped to find the insights that might better convert infrequent users into power users.

Deciding the Right Usability Tests

Because our project was based on design sprints, we wanted to be comprehensive but also cost-efficient. We chose unmoderated remote testing, which included analyzing filmed card sorting, tree sorting, and a first-click test. These tests would allow us learn how test participants use the product in their own lives, how they prioritize information, and what actions are most popular.

I. VIDEO-RECORDED USER TESTING

We chose this method because it was the perfect balance between cost versus benefits. Since we wanted to complete the project from kickoff to redesign in roughly 3 weeks, unmoderated user testing would let us recruit quickly, plan simply, and test our participants simultaneously.

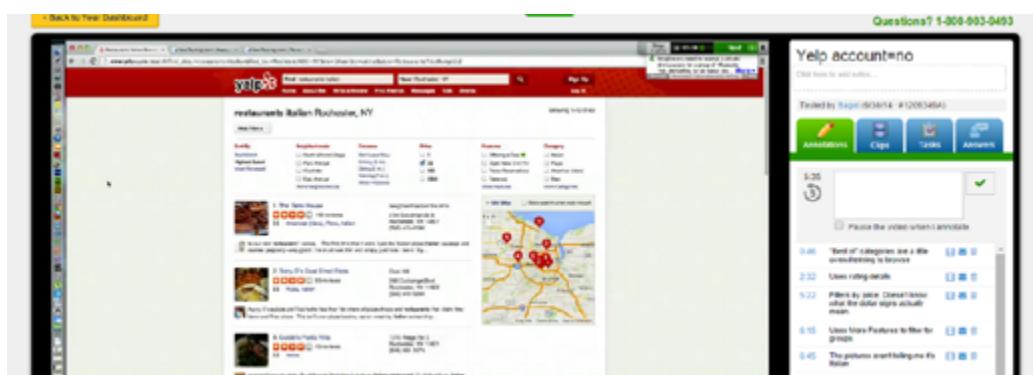


Photo credit: www.usertesting.com

Video-recorded user testing also provides the added benefit of detecting issues that may not surface in a traditional moderated testing environment. While moderated testing allows for instantaneous give-and-take feedback, there is still no substitute for letting users interact with a product in its natural environment. Both methods are complementary — moderated testing helps you learn from users thinking out loud, while unmoderated testing lets you analyze task completion in natural settings.

UserTesting recommends moderated testing [early on in the development process](#). In the prototyping phase, moderated testing allows for exploratory research in which you can gather opinions and reactions to ideas. Even though Yelp is a fully functioning website, we still conducted moderated tests because we felt exploratory research was still valuable — we wanted to learn more about why certain features were important and how users interact with search engines.

II. CARD SORTING

Our [card sorting exercises](#) helped us understand how users organize content, which provides insight for navigation and labelling decisions.

How do I post a Yelp deal or gift certificate?
84 How do I remove a Yelp deal?
72 77 How can I request payment for Yelp deals?
72 68 75 How do I track which customers redeem vouchers for my Yelp deal?
65 68 72 84 How can I reach out to customers who've bought my Yelp deal?
56 52 59 54 50 Will Yelp cancel a customer's voucher if that customer violates the terms of my deal?
15 15 15 13 15 25 Can I sue Yelp for a bad review?
6 9 6 11 11 9 59 What should I do if a review demands payment in exchange for removing a negative review?
6 9 6 11 15 15 54 70 Why is a review that was removed from Yelp still appearing in Google search results?
9 6 4 6 6 18 47 56 75 Will Yelp remove reviews that contain offensive content?
0 2 6 4 2 15 38 40 47 61 Should I report a business that is trying to pay people to write positive reviews?
2 2 6 4 6 15 25 20 27 34 47 Can I report a photo or video that violates my privacy rights?
15 13 6 6 6 20 29 20 27 40 38 75 Can I report my copyrighted photos or videos that someone posted on Yelp without my permission?
20 18 18 13 13 25 25 15 22 38 40 61 72 How do I report content that violates Yelp's Content Guidelines or Terms of Service?
13 13 13 4 11 25 52 29 34 40 27 40 45 54 Is Yelp responsible for the content posted by its users?
20 27 18 13 20 22 31 22 22 22 25 22 31 25 34 What's the deal with those companies that claim to be able to help me manage my reputation on Yelp?
29 29 27 18 27 18 22 15 11 11 2 6 15 18 22 43 How do I post my business's menu to Yelp?
34 38 36 27 40 20 22 6 13 6 2 2 9 15 20 40 65 How can my business be featured in an upcoming edition of the Weekly Yelp?
15 20 22 15 22 18 27 9 9 11 6 15 20 15 27 40 59 63 Can I put Yelp's logo in marketing material for my business?
20 20 20 18 22 25 27 13 6 13 11 11 18 22 22 34 61 52 61 Why did Yelp reject changes I made to my business page?
18 15 11 11 13 13 29 13 9 9 15 11 13 11 25 38 56 54 54 56 Can I add a new business to Yelp before it actually opens?
27 27 18 15 25 11 15 4 15 13 15 20 22 22 34 56 59 43 52 68 How do I claim a business page that has already been claimed?
18 20 20 15 25 11 9 9 11 15 15 25 22 29 18 29 52 54 38 54 47 63 How do I report incorrect business information if the fields are locked?
29 27 18 20 22 13 25 9 4 6 6 22 20 13 18 31 63 47 36 47 47 54 52 How can I change which photos of my business appear first?
22 31 20 11 20 13 25 11 18 11 6 11 20 15 27 38 59 59 52 54 65 61 43 47 Can I remove my business page from Yelp?

Photo credit: www.optimalworkshop.com

Donna Spencer, [card sorting expert](#) and **Founder of Maadmob**, believes that while card sorting might not provide a final structure, it does help [answer questions about information architecture](#) that are required for design. There are two types of card sorting:

- **Open Card Sorting** — Test participants are provided cards showing site content with no established groupings. They are then asked to organize the cards into groups that make sense for them, and to label those groups.
- **Closed Card Sorting** — Test participants are given cards showing site content, and are shown groups that already have labels. They are then asked to organize the cards into these groups.

For the sake of timing, we ran a closed card sort since it would be simpler to reorganize the existing IA. The closed card sort showed us how users might interact with Yelp's 47 feature filters (such as "Allows Pets" and "Open Late"). If timing and resources are favorable (especially if you're creating a new site), it's highly recommended that you also run an open card sort — that way you can restructure your IA from the ground up if needed.

III. FIRST-CLICK TEST

A first-click test examines what a test participant would click first on an interface in order to complete their task. As explained in the [Guide to Usability Testing](#), the first click is especially important when it comes to website navigation since users won't give you a second chance to make a first impression.

Task 1 of 6

You're going out for dinner in San Francisco and want to find out about some good nightclubs for afterwards.

The screenshot shows the Yelp homepage with a search bar set to "Near San Francisco". Below the search bar, there are several categories of businesses listed: Active Life, Arts & Entertainment, Automotive, Beauty & Spas, Education, Event Planning & Services, Financial Services, Food, Health & Medical, Home Services, Hotels & Travel, Local Services, Nightlife, Pets, Professional Services, Real Estate, Restaurants, and Shopping. A sidebar on the left includes links for "Sort By" (Best Match, Highest Rated, Most Reviewed), "Neighborhoods" (Financial District, SoMa, Union Square, Mission, More Neighborhoods), "Distance" (Bird's-eye View, Driving (5 mi.), Biking (2 mi.), Walking (1 mi.), Within 4 blocks), and "Features" (Offering a Deal, Open Now 12:33 PM, Sells Gift Certificates, Free Wi-Fi, More Features). At the bottom of the page, it says "Showing 1-10 of 90136".

Photo credit: www.usertesting.com

The importance of the first click is best understood by a test that **Bob Bailey, Senior Innovator at Adobe**, [ran on the CDC.gov website in 2006](#). He found that when the user's first click is on the right path, 87% will succeed at the task. When they click down the wrong path, only 46% succeed. Considering that the Yelp home page is teeming with options (cities in the top nav, popular events in the sidebar, etc.), this test would let us see which section was the most intuitive and where we could cut features.

Define, Plan, Test

The methods we've chosen here are designed for a fast-paced design process, but the principles are applicable to small companies and enterprises. Understand the business objectives, identify the right user group, and then plan the tests that work best for your budget and timeline. Get that done and you'll have completed one of the most important first steps for your design. The worst enemy in the design process, after all, is ambiguity.

"Ambiguity is the worst enemy in the design process."

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CHAPTER FOUR

Planning & Gathering Qualitative Data

Recording User Reactions and Thoughts on Video

To see how users behave in a natural environment, it helps to use remote usability software (such as UserTesting) to record the screens and the voices of test participants. This lets you hear them thinking out loud and see every click.

While focus groups and field studies help you understand user opinions and natural product use, remote recorded tests let you see reactions and hear the thoughts of users as they focus on specific tasks. Regardless of the method you choose, just remember that user research is not about writing reports — it's about asking and answering the right questions and gathering data so that you can make evidence-based decisions in your designs.

Choosing User Demographics

As described in [The Guide to Usability Testing](#), in order to set up your user tests, one of your first steps is determining *who* the target audience should be for the purpose of the study.

From the perspective of a company with a very large user base (138 million unique monthly visitors, [according to Yelp's Q2 2014 numbers](#)), it is very important for the redesigned website to still be usable by the **average current user**. Yelp certainly would not want to alienate its existing loyal fans in favor of an improved onboarding experience for first-time users. So, for this study, we were primarily interested in observing current, semi-frequent Yelp users, rather than brand new users. We also chose not to focus on power users (those who use Yelp every day), because their experience would not be representative of the middle-of-the-road, occasional user.

Screener Question #1

How often do you use Yelp?

Characters left: 274

Multiple Choice Options:

Users can only select one answer

1 Every day

Include users who select this answer 

2 3-4 times per week

Include users who select this answer 

3 1-2 times per week

 Include users who select this answer 

4 1-2 times per month

 Include users who select this answer 

5 A few times a year

 Include users who select this answer 

[Add "None of the above" \(recommended\)](#)

[+ Add another answer](#)

Photo credit: www.usertesting.com

We chose not to focus on age, gender, income level, or experience using the web since Yelp users come from all backgrounds. Since this study was purely for qualitative analysis, we did not need statistical significance to validate our findings. We followed [industry best practices](#) and ran our study with a total of 5 users (according to Nielsen Norman Group, a sample of 5 users will uncover 85% of a site's problems).

One of the tasks in our test required users to log in to an account. Since our test participants were not new users, however, we were not interested in testing account creation. We were slightly concerned that users who had an account would be more likely to be power users, so we decided to test with two segments: one with Yelp accounts (3 users), and one without (2 users). For the segment with Yelp accounts, we only selected participants who had been Yelp

users for less than 6 months to further eliminate the likelihood that they would be power users.

Lastly, for simplicity's sake in our design sprint, we only tested Yelp's website on desktop, not on mobile. If this had been more than an exercise in design, we would have tested the experience on smartphone and tablet as well to make sure we addressed any problems that users encountered on mobile devices.

Here are the exact demographic requirements and screener questions that we used:

Test Details: Group 1 (Yelp account holders)

User requirements: 3 users

Any age, any income level

Any gender

Any web experience

Device: desktop computer

Located in U.S.

How often do you use Yelp? Every day | **3-4x a week** | **1-2x a week** | **1-2x a month** | a few times a year

How long have you been using Yelp? **Less than 6 months** | 6 months - 1 year | More than a year

Do you have a Yelp account? **Yes** | No

Test Details: Group 2 (No account holders)

User requirements: 3 users

Any age, any income level

Any gender

Any web experience

Device: desktop computer

Located in U.S.

How often do you use Yelp? Every day | 3-4x a week | **1-2x a week** | **1-2x a month** | a few times a year

How long have you been using Yelp? **Less than 6 months** | **6 months - 1 year** | More than a year

Do you have a Yelp account? Yes | **No**

Determining test objectives and assigning tasks

Any good research plan should begin with the question, “What are we hoping to learn?”

In our case, our objectives were to learn how semi-frequent Yelp users go about completing several very common tasks (to see what features were most important), and at least one not-so-common task (to see if they knew how to use a more advanced feature).

"Any good user test plan must begin with the question 'What are we hoping to learn?'"



We assigned all users the following common tasks:

- **Focused task** — Find a business based on very specific parameters
- **Open-ended task** — Find a business without being given very many guidelines
- **Highly specific task** — Look up a specific location to learn a specific piece of information

We wanted to learn when both user groups chose to search versus browse, how they interacted with filters, and how they made a decision about which business to go to.

As for the less common tasks, we provided a different task for each user group. Since we had heard several anecdotal complaints from registered Yelp users about Bookmark and Lists features, we asked registered users (Group 1) to complete the less-common task of saving businesses for later reference. For users without accounts (Group 2), we chose a less-common task that did not require an account: finding an event. We wanted to see if these users would search or browse the site, and how they would make a decision about which event to attend.

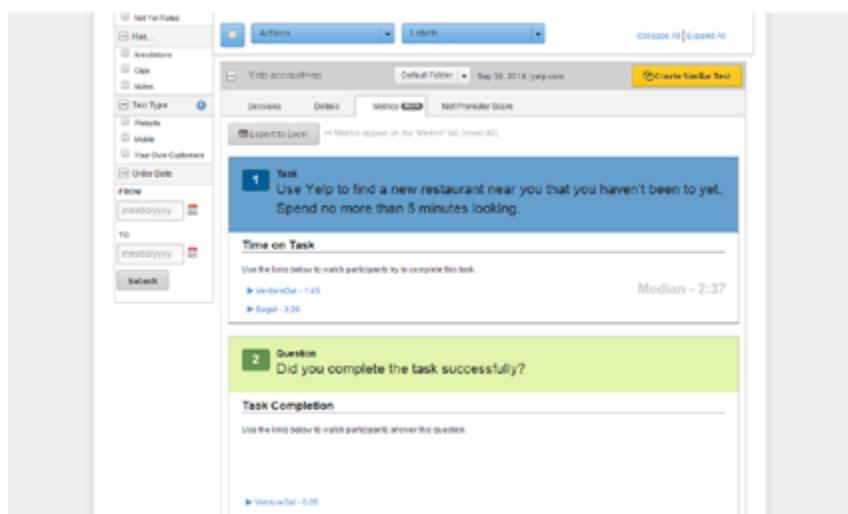


Photo credit: www.usertesting.com

Below, you'll find detailed explanations of the common and less-common tasks that we assigned to each group of users. After each task, we asked test participants if they were able to complete the task successfully and the level of ease or difficulty of completion.

Tasks: Group 1 (Yelp account holders)

1. Imagine you need to reserve a private dining space for a group of 15 people. You are looking for an Italian restaurant with a classy ambiance. Your budget is about \$20 per person. Try to find a restaurant near you that matches all of these needs.
2. Imagine your best friend is having a birthday soon, and you'll be planning a party. Find 10 bars or lounges near where you live that you would be curious to look into later for the party. Save them so that you can easily find them again on Yelp.
3. Imagine you are driving through Boise, Idaho, and your car starts to make a strange noise right as you're about to stop for the night. Your passenger recommends 27th St Automotive. Use Yelp to find out if they are open at 8:00 pm on Tuesday.
4. Go to the place where you saved the 10 bars for your best friend's party. Keeping his or her tastes in mind, choose one that would be a good match.

Tasks: Group 2 (Not account holders)

1. Use Yelp to find a new restaurant near you that you haven't been to yet. Spend no more than 5 minutes looking.
2. Imagine you need to reserve a private dining space for a group of 15

people. You are looking for an Italian restaurant with a classy ambiance. Your budget is about \$20 per person. Try to find a restaurant near you that matches all of these needs.

3. Imagine you are looking for something fun and unique to do in your neighborhood this weekend. Try to find a concert, play, or other event using Yelp.
4. Imagine you are driving through Boise, Idaho, and your car starts to make a strange noise right as you're about to stop for the night. Your passenger recommends 27th St Automotive. Find out if they are open at 8:00 pm on Tuesday.

Once we had selected our test participants and written our test questions, we launched the user tests. Our video results came back within about an hour, and we got ready to watch and analyze them within the UserTesting dashboard. In the next chapter, we'll walk through how we analyzed our results and turned them into design insights.

To learn about up to 20 usability testing techniques, check out [The Guide to Usability Testing](#).

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CHAPTER FIVE

Qualitative Analysis of User Research

Breaking Down Feedback into Useful Insights

Once our research was complete, it was time to analyze the findings and determine the major pain points users experienced with Yelp's current site. We began by watching our UserTesting videos and making note of interesting moments. (UserTesting's platform allows you to annotate videos and create video clips directly from your dashboard.)

As discussed in [The Guide to Usability Testing](#), there are a wide range of user research options ranging from resource-intensive usability lab studies to simple email surveys. Our screen-recorded user tests provided us both attitudinal and behavioral insights since we could hear what users thought (attitudinal) as well as see what they did on screen (behavioral). We'll explain why qualitative research matters and then explain the takeaways from our tests.

The Right Approach to Qualitative Analysis

When it comes to qualitative analysis, it's not enough to just ask users to recount their experiences. As **Jakob Nielsen, Partner at the Nielsen Norman Group**, [points out](#), the first rule of usability is to never listen only to what users say. The wrong approach would be to create a few designs and then ask users which one they like the most — users haven't tried the design, so they can only comment on surface features.

The diagram illustrates the two main approaches to research methods:

- Qualitative Methods:** Contact with subject: Direct; Focus: Why? / When? / What happened?
- Quantitative Methods:** Contact with subject: Indirect; Focus: How many? / How much?

Based on: [Which UX Methods](#) by Christian Rohrer

The right approach to qualitative analysis, and the one that we are champions of, is to examine user behavior and then ask them the [Single Ease Question](#). This process helps to eliminate cognitive biases and gets to the bottom line of UX analysis: how did the users accomplish their tasks, and how easy or difficult was it? Our screen recording also captured audio (and we encouraged people to think out loud), because otherwise it's easy to miss why certain behavior occurred. The "why", after all, is the most important part of user analysis.

"For qualitative data, it's not enough to just ask users to recount experiences."



Analyzing Qualitative Results

Distinct patterns emerged in our observations of user interactions with Yelp. Overall, we learned that the Search bar was one of the most essential features, and it was easy to use if the users knew exactly what they were looking for (if they knew the name of a business, for example). Other features weren't as intuitive, though, as you'll see in our discussion below.

I. THE SEARCH FUNCTION WAS THE PRIMARY STARTING POINT FOR ANY TASK.

All five test participants relied heavily on the Search bar, even for tasks that could easily be completed by browsing through the Categories instead (such as finding an interesting restaurant or bar without being given any specific parameters).

In fact, four out of the five participants went straight to the search bar to find a restaurant. Only one user started browsing through the categories, and she quickly found them "overwhelming" and ended up resorting to the Search bar instead.

The Search bar was the most intuitive feature for users. Photo credit: www.yelp.com

Best of Yelp: Denver

Restaurants 5,421 reviewed	Restaurants See More
Food 2,759 reviewed	1. Kitchen Table Cafe 134 reviews The Chicken pot pie was delicious and the beef burnt ends were great...
Nightlife 1,119 reviewed	2. Root Down 1451 reviews Sweet potato fries(toasted curry lime yogurt dipping sauce) 7/10.
Shopping 4,234 reviewed	3. Work & Class 171 reviews butterscotch pudding - oh my god good, and i don't even like pudding.
Bars 877 reviewed	4. Vert Kitchen 180 reviews Pardon my French, but best damn turkey sandwich I ever ate.
American (New) 385 reviewed	5. Cart Driver 23 reviews
American (Traditional) 522 reviewed	
Mexican 920 reviewed	
Beauty & Spas 2,355 reviewed	
Home Services 3,264 reviewed	
Automotive 2,005 reviewed	
Health & Medical 2,694 reviewed	
Local Services 1,639 reviewed	
More Categories	

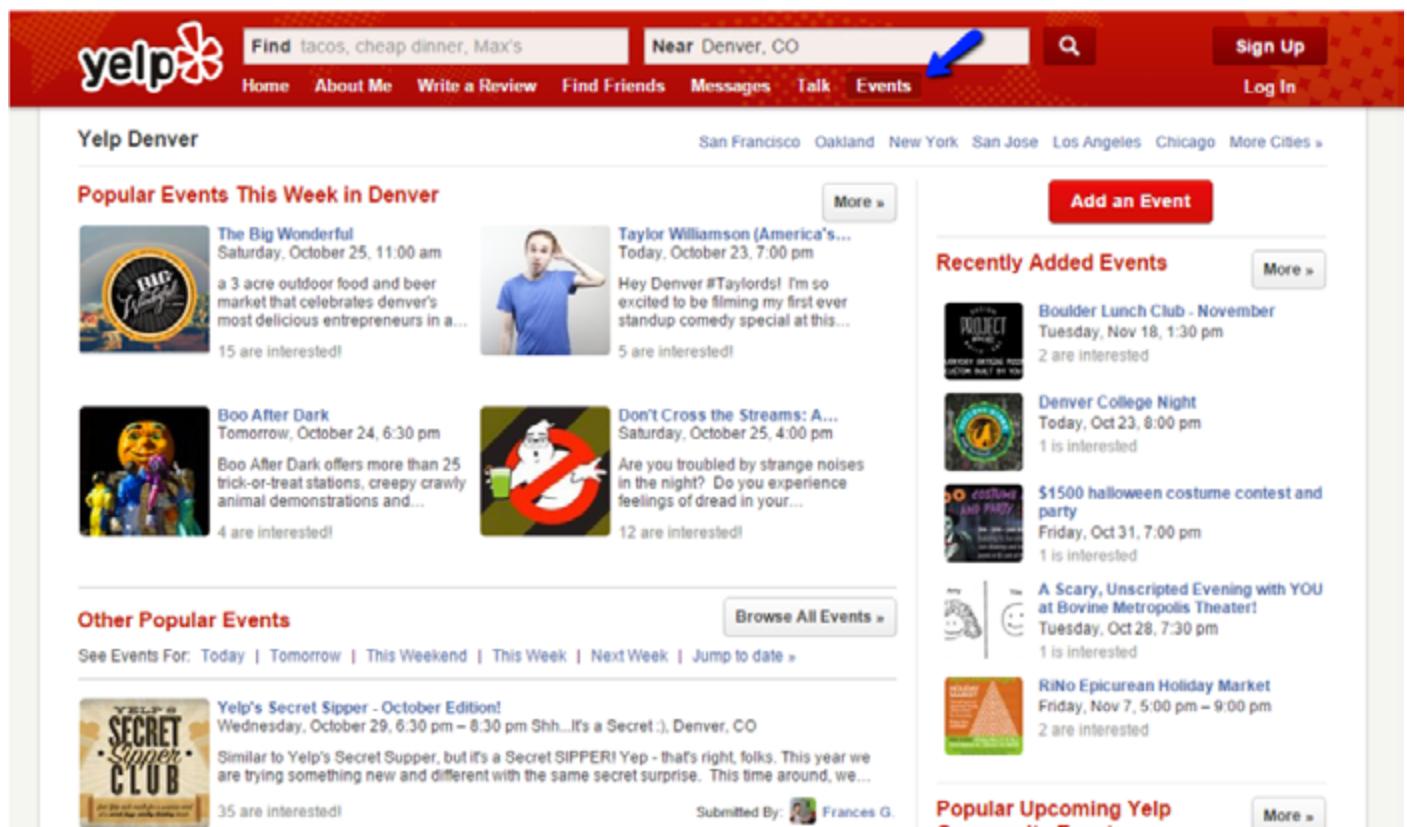
Yelp's categories were „overwhelming” and less helpful than the Sketch bar. Photo credit: www.yelp.com

Note: in our test instructions, we asked users to “find” a restaurant, not to “search for” a restaurant, because we wanted to observe how they would naturally go about this task without biasing them toward a specific function.

Interestingly, when the users were given specific parameters (like the budget, ambiance, and type of restaurant, or the name of an individual business) they almost universally ignored everything on the homepage except for the Search bar. Knowing this, we realized it would be very important to make the Search bar the most prominent feature on the redesigned site.

II. EVENTS WERE NOT VERY NOTICEABLE.

In one task, we asked the two users without Yelp accounts to find an interesting event in their area this weekend. We wanted to learn whether they would use the Events tab at the top of the page.



The screenshot shows the Yelp Denver homepage. At the top, there is a search bar with the placeholder "Find tacos, cheap dinner, Max's" and a location selector set to "Near Denver, CO". Below the search bar are navigation links: Home, About Me, Write a Review, Find Friends, Messages, Talk, and Events. A blue arrow points to the "Events" link. To the right of the links are "Sign Up" and "Log In" buttons. The main content area features sections for "Popular Events This Week in Denver" and "Recently Added Events". Each event listing includes a thumbnail image, the event name, date, a brief description, and the number of interested users. There are also buttons for "Add an Event" and "Browse All Events".

The Events tab is easy to miss. Photo credit: www.yelp.com

Surprisingly enough, nobody used the Events tab. When asked to find an interesting event in their area this weekend, one test participant used the Search bar while the other navigated through the Arts & Entertainment category in the Best of Yelp section.

We learned that if we wanted users to actually interact with the Events feature on Yelp, we would need to make it easier to find.

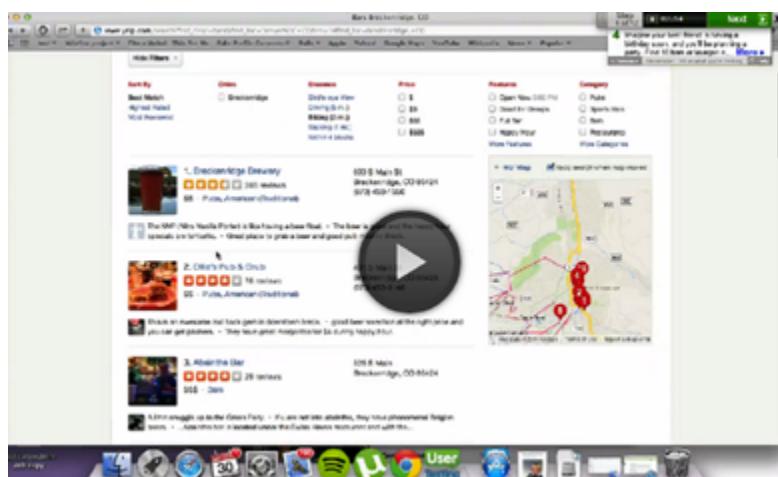
III. BOOKMARKING WAS FRUSTRATING, AND NO ONE USED LISTS.

We were curious to see how users would choose to save locations for later reference. In Yelp, there are two ways to do this: users with existing accounts can either bookmark a location or create a list. We simply asked Group 1 (three users with Yelp accounts) to “save” a number of locations to look into later so that our wording wouldn’t mention any features that could bias their actions.

Of the three users who were given this task:

- One saved the businesses using Bookmarks but complained that the process took a long time
- One started to save businesses using Bookmarks but gave up because it took too long
- One was not able to figure out how to save businesses and gave up on the task

The two users who used Bookmarks both remarked that it would be nice to be able to bookmark a business from the search results page, rather than having to go to each business’s page separately, as you can see in the video below.



Click the “Play” button to hear user thoughts on the Bookmarks feature.

It would be nice to allow users to have an easier and more intuitive method of saving businesses to return to later, so we prioritized bookmarking in our redesign.

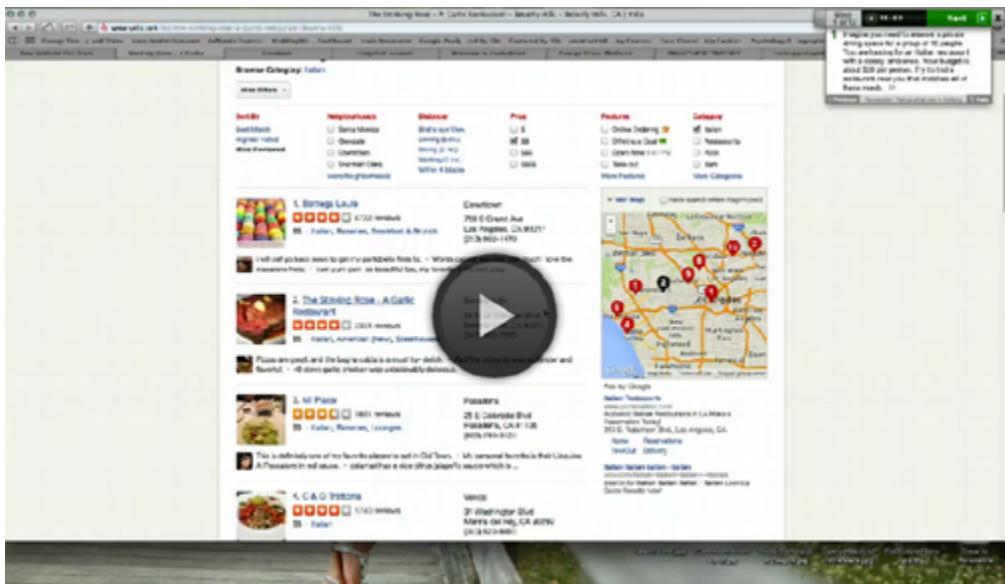
IV. SEARCHING FOR A SPECIFIC VENUE WAS EXTREMELY FAST AND EASY.

All five users were given a task to find a specific business to find out if it was open at a certain time. They all successfully completed this task, and rated the task as “Very easy”. As mentioned previously, all five used the search bar to accomplish this task.

Since searching for a specific business is working so well, we decided not to change anything about the way Yelp has designed this functionality.

V. USERS RELIED ON PHOTOS TO DETERMINE THE AMBIANCE OF A RESTAURANT.

When asked to find a restaurant with a certain ambiance, none of the five users attempted to use the search bar. Instead, three users looked through photos of the restaurant on Yelp, one visited the restaurant’s website, and the last stated that the price symbols (\$,\$,\$,\$,\$,\$) was enough to indicate if the restaurant had the right ambiance.



Click the “Play” button to hear user thoughts on determining restaurant ambiance.

This brought up two insights:

1. Photos are an essential part of the Yelp experience, and they are critical for users to choose a business.
2. Ambiance doesn't play much of a role in Yelp's search or filtering functions. We decided that, in the redesign, we could either include a filter for types of ambiances, or just make photos more prominent.

VI. USERS RELIED ON FILTERS, BUT THEY COULD BE IMPROVED.

In the task where five users were asked to find a restaurant for a group of 15, three of the five participants used the “good for groups” filter, while one used the “make a reservation” feature and scrolled down until she found a restaurant that could seat the group.

At another point, one user attempted to select two categories to filter his results, but one of his choices disappeared when he clicked the other. (See the video below.)

Click the “Play” button to hear user thoughts on using Filters.

While filters are important, we learned that they could be greatly improved. This finding inspired us to run a card sort on all of Yelp's current filter options to determine which ones are actually useful to users.

VII. THE PRICE CATEGORIES WEREN'T CLEAR.

When users were searching for the restaurant with specific parameters, one of the requirements was to find a restaurant within a \$20/person budget. Two of the five users were confused by whether their \$20 restaurant budget would fall into the \$, \$\$, or \$\$\$ category. One user stated that she didn't know what the symbols meant, and another clicked the wrong category. The other three correctly chose the \$\$ category.

The definition of the symbols does not display when users select filters; it only displays when the user navigates to a particular restaurant's page. Since price expectations are highly subjective, it was unclear to users which category they should choose.

With this insight, we decided that in our redesign, we would need to be more explicit about what each dollar symbol indicated.

Watch, Listen, Learn

What users say and what users do should serve as checks and balances during user testing. While you don't need to necessarily be present during the test, an audiovisual recording is mandatory, otherwise you might miss out on the context of actions. When you combine qualitative analysis with quantitative analysis (which we discuss in the next chapter), you'll get an even clearer idea of *why* and *how* to fix a problem, as well as *how many* usability problems need to be solved.

"What users say and what users do should serve as checks & balances during user tests."



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CHAPTER SIX

Gathering Quantitative Data on User Behaviors and Mental Models

Two Tests to Assess the Information Architecture and Visual Design

After getting really useful insights from the filmed usability test, we wanted to analyze the information architecture in greater detail. So we ran a first-click test on Yelp's homepage using [Chalkmark](#), which gave us insights into the aspects of the information architecture that worked, and which aspects confused users. And we ran a [closed card sort](#) on Yelp's feature search filters using [OptimalSort](#) to find out which search filters were the most popular, and if there were any filters that could be removed to reduce clutter.

The quantitative methods we used were all time-efficient and cost-efficient, demonstrating that user research doesn't require thousands of dollars, a team of researchers, and endless time.

As discussed in [The Guide to Usability Testing](#), regardless of the method you choose, just remember that user research is not about writing reports — it's about asking and answering the right questions and gathering data so that you can make evidence-based decisions in your designs.

"User research isn't about writing reports. It's about asking the right questions."

 TWEET THIS

Choosing Our Users

We recruited participants through Optimal Workshop's recruitment panel, and kept our demographic to people based in the US (as that is where Yelp is widely used). Instead of filtering by age, gender, income, or computer experience in the recruitment stage, we asked pre-activity questions designed to deepen our understanding of participant responses. This is because while demographics are important, [what users know and how they use similar products is likely more important](#).



Photo credit: Marcin Treder, [UXPin](#)

For the closed card sort on Yelp's homepage, we asked participants how often they used Yelp, and how often they used the search filters, so that we could filter our data based on users with more or less experience. Knowing how many people used search filters would also give us an insight into how important search filters actually are for Yelp's users.

For the first-click test, we asked participants how often they used Yelp, and their likelihood and frequency of writing Yelp reviews. We wanted to know how often they wrote reviews so that we could establish their level of comfort with the site.

Since we sought quantitative data, we wanted to recruit a minimum of 30 participants for each study (**NNGroup Principal Jakob Nielsen recommends a minimum of 20**). We ended up testing 40 people for the closed card sort, and 38 for the first-click test. If you'd like to learn more about screening and recruiting users, check out the **NNGroup's helpful and free e-book with 234 tips**.

We ran a closed card sort using OptimalSort

Closed card sorting involves presenting participants with labelled cards, and asking them to put them into pre-defined categories. As [Donna Spencer says](#), closed card sorting is a ‘content-centric technique’ and can be useful ‘when adding new content to an existing structure.’

"For card sorting, simpler is better. Avoid jargon and complex words."



When it comes to naming the cards, simpler is better. Avoid big words (many syllables) and jargon. This advice is essential for card sorting since unnecessarily complex labeling will disrupt natural thought processes. **Pierre Croft, IA and UX expert for Decibel Digital** believes that card sorting [can even help defend against the bad ideas of HIPPOS](#) (highest paid people in the room) who usually aren’t the web usability experts. Card sorting is cheap, useful, and quick, so let’s examine a few of Croft’s tips from his [excellent article](#):

- **Don’t mix parent and child categories** — In other words, use categories from the same level, or else you will confuse your participants.
- **Provide open forms for additional feedback after the test** — While this is standard procedure for open card sorting, it’s also quite useful for closed card sorting. Provide a couple blank forms (or blank cards) for participants to write down additional categories. While the information might be “off-the-record,” it could bring to light some useful insights.
- **Don’t intervene too much** — After giving the instructions, try your best to just sit back. Intervention can obscure the data. Luckily, this is not an issue in remote card sorting.

- **Accept that sometimes users don't group everything** — A lack of grouping can be just as telling as a structured sorting. If this happens, make sure you ask the user why. If you're running a closed sort and not everything is sorted, you can also provide blank forms (or blank cards) to see why the existing categories weren't chosen.

Instead of testing the top level navigation labels of Yelp's website, we decided to use closed card sorting to find out which features search filters were most important to users, and which were ignored. This analysis might help us to simplify the search filter options, as 'visual clutter' was mentioned by participants as an issue.

sells gift certificates			
dogs allowed	Very important	Somewhat important	Not important at all
paid wifi	open now	beer and wine only	validated parking
has a DJ	accepts credit cards	waiter service	garage parking
free wifi	highest rated	take-out	most reviewed
offering a deal	full licensed bar	good for groups	has live music
no smoking	best match	open late night	valet parking
serves brunch		walking (1 mile)	smoking allowed
good for kids		delivery	outdoor/patio smoking allowed
street parking			wheelchair accessible
serves dinner			coat check
has a juke box			
has karaoke			
within four blocks			
birds eye-view			
happy hour			
serves breakfast			
serves lunch			
driving (5 miles)			
biking (2 miles)			
private parking lot			
			I don't know what this option means
			accepts insurance

Photo credit: www.optimalworkshop.com

Our closed card sort had three simple objectives:

- Determine how often people use search filters on Yelp (or a similar site)
- Determine which filters are most important to users
- Determine which filters are least important to users

In total, we had 47 cards representing all of Yelp's 47 search filters (price, distance, etc). We then asked participants to sort them into categories of importance: very important, somewhat important, not important, and unsure.

We ran a first-click test using Chalkmark

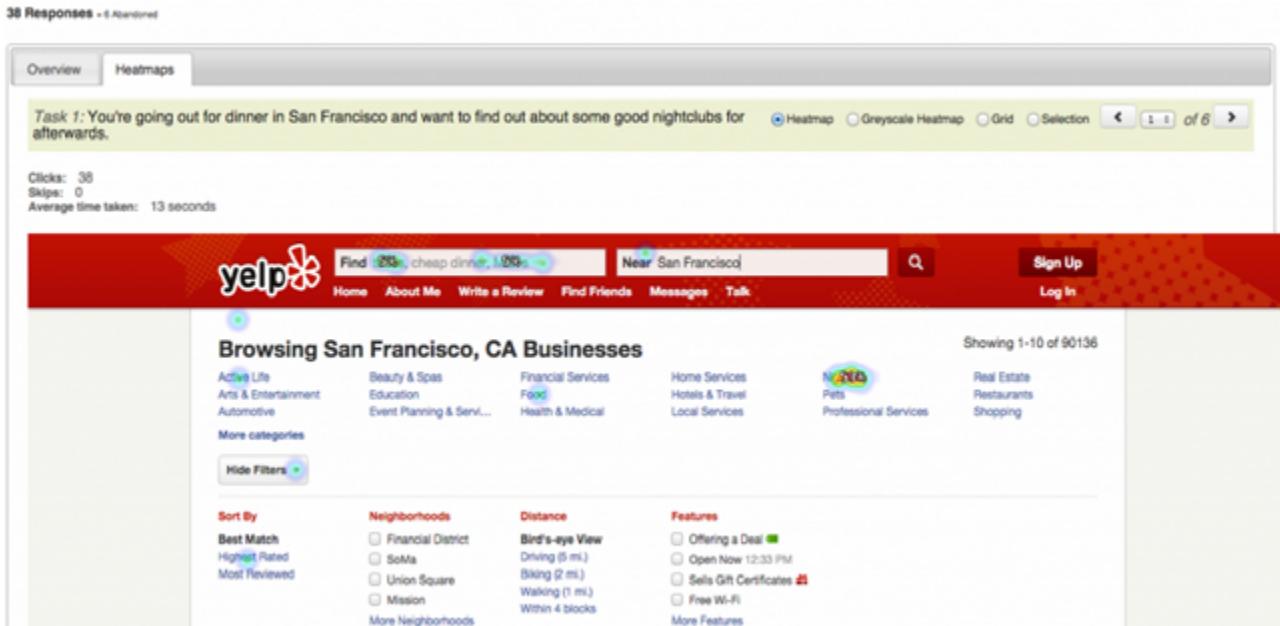
First-click testing records the users' first click in response to a task. Participants only click once, and then move on to the next task. First-click testing is becoming increasingly important: [studies have shown](#) that if a user gets their first click right, they're 87% likely to complete the task they came to the website to do.

As discussed in [The Guide to Usability Testing](#), first-click testing can be done on a live website, early prototype, or even just a wireframe. **Jeff Sauro, Founding Principal of MeasuringU**, recommends [conducting first-click testing after each major iteration](#). Here are some guidelines Sauro suggests:

1. **Write clear tasks** — Just like you would for a scripted usability test, make sure the participant is thinking about how to solve a problem instead of just where to click. Detail isn't required, but clarity is.
2. **Define the best paths to success** — Start from the homepage and plot all possible paths that will correctly accomplish each task. First click testing is even more relevant if your site gets a large volume of search traffic (like Yelp). Because your homepage probably won't be the first page users find,

first click testing should ideally be done across your entire site.

3. **Time each task** — A 90% first click rate on the correct label might deceptively indicate that your navigation is effective, unless you timed the test and saw it took an average of three minutes to make that first click.



Our first-click test had two objectives:

- Determine if the information architecture enabled users to complete tasks quickly
- Determine if the navigation labels are clear

We asked users to accomplish certain tasks (such as finding a good nightclub after dinner in San Francisco), provided them screenshots of Yelp pages, and recorded where they clicked. We then analyzed the heatmap results, and the speed with which participants completed the tasks they were presented with.

These two remote research techniques are two among many

As user researchers and UX designers, you have an almost endless number of techniques and tools to choose from when you embark on a design or redesign project. For us, closed card sorting and first-click testing provided the best balance of data, cost, and speed. We knew that these techniques would provide us with quick data to support our qualitative research, and results that would be easy to analyze and draw design recommendations from.

To learn about over 20 methods for usability testing, feel free to check out the complementary [The Guide to Usability Testing](#).

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CHAPTER SEVEN

Quantitative Analysis of User Research

Breaking Down User Data into Useful Insights

Once we finished the qualitative analysis, we then analyzed the data from the two remote studies run with Optimal Workshop's tools. We ran two different remote studies to answer questions about how users interact with Yelp's main site, and to support the qualitative data we'd already gathered.

The studies had different objectives, so the results give us a couple of options for the next steps in the redesign. This section shares our key findings from each of these studies, and our design recommendations.

The results of our closed card sort on Yelp's features search filters

Yelp presents users with a selection of search filters based on the region they're searching. If you happen to be searching for a service in San Francisco, you'll discover that [Yelp offers 47 feature filters](#) to narrow your search. We decided to run a [closed card sort](#) on the features search filters to learn how often they were used, and which were the most and least important.

The screenshot shows the Yelp homepage with a search bar for "tacos, cheap dinner, Max's" and a location set to "Near San Francisco, CA". The navigation bar includes "Sign Up" and "Log In". Below the search bar, there are links for "Home", "About Me", "Write a Review", "Find Friends", "Messages", "Talk", and "Events". A "Showing 1-10 of 90072" message is visible. The main content area is titled "Browsing San Francisco, CA Businesses". It features several categories of filters: Active Life, Arts & Entertainment, Automotive, Beauty & Spas, Education, Event Planning & Servi..., Financial Services, Food, Health & Medical, Home Services, Hotels & Travel, Local Services, Mass Media, Professional Services, Real Estate, Religious Organizations, Restaurants, and Shopping. A "More categories" link is present. On the left, there are "Sort By" options: "Best Match", "Highest Rated", and "Most Reviewed". Under "Neighborhoods", there are checkboxes for Bayview-Hunters Point, Financial District, Marina/Cow Hollow, and SoMa, with a "More Neighborhoods" link. Under "Distance", there are options for Bird's-eye View, Driving (5 mi.), Biking (2 mi.), Walking (1 mi.), and Within 4 blocks. A green circle highlights the "Features" section on the right, which contains four filter checkboxes: "Offering a Deal" (with a green checkmark), "Open Now 12:25 PM", "Sells Gift Certificates" (with a red exclamation mark), and "Free Wi-Fi". A "More Features" link is also present. A green arrow points from the top right towards the "Features" section.

Photo credit: www.yelp.com

The 40 participants took an average of 3 minutes to sort all 47 cards into the given categories, which is unsurprising — closed card sorting can be reasonably straightforward for participants compared with an open card sort, because the

categories are already created. This allows +participants to make instinctive decisions, decreases the abandonment rate, and results in authentic, useful data because it taps into people's decision-making heuristics.

OptimalSort																																																																																											
View Instructions Leave a comment																																																																																											
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Photo credit: www.optimalworkshop.com

I. 92.5% OF OUR PARTICIPANTS SAID THEY USE YELP'S SEARCH FILTERS REGULARLY

Most of our participants do use the search filters regularly when looking for a service. This suggests that search filters are an important aspect of what Yelp offers, and that optimizing the search filters could be a priority in the redesign.

II. THE MOST IMPORTANT FEATURE FILTERS WERE “OPEN NOW”, “ACCEPTS CREDIT CARDS”, AND “SERVES DINNER”

90% of participants considered “Open now” to be very important. “Accepts credit cards” came in a close second with 85% of people placing it in the “Very important” category. When we look at Yelp’s search filters, we see that there are four categories in red that users can select. Once users focus on the Features category on the far right, we can see that “Open Now” is easily accessible,

Sort By	Neighborhoods	Distance	Features
Best Match	<input type="checkbox"/> Bayview-Hunters Point	<input type="checkbox"/> Bird's-eye View	<input type="checkbox"/> Offering a Deal
Highest Rated	<input type="checkbox"/> Financial District	<input type="checkbox"/> Driving (5 mi.)	<input type="checkbox"/> Open Now 12:26 PM
Most Reviewed	<input type="checkbox"/> Marina/Cow Hollow	<input type="checkbox"/> Biking (2 mi.)	<input type="checkbox"/> Sells Gift Certificates
	<input type="checkbox"/> SoMa	<input type="checkbox"/> Walking (1 mi.)	<input type="checkbox"/> Free Wi-Fi
	More Neighborhoods	<input type="checkbox"/> Within 4 blocks	More Features

Photo credit: www.yelp.com

The filter “Accepts credit cards” is accessible once users click “More Features”. Furthermore, while filtering for meal type was relatively important — 82% of users said “Serves dinner” was very important, and 55% of users said “Serves lunch” was very important — it took more than one click to access the feature filters for meals. Accessing the “Serves dinner” search filter on Yelp’s website is trickier for users than the filters shown above. Users need to choose one of the four red categories again, and then click ‘More Features’ to reveal this menu:

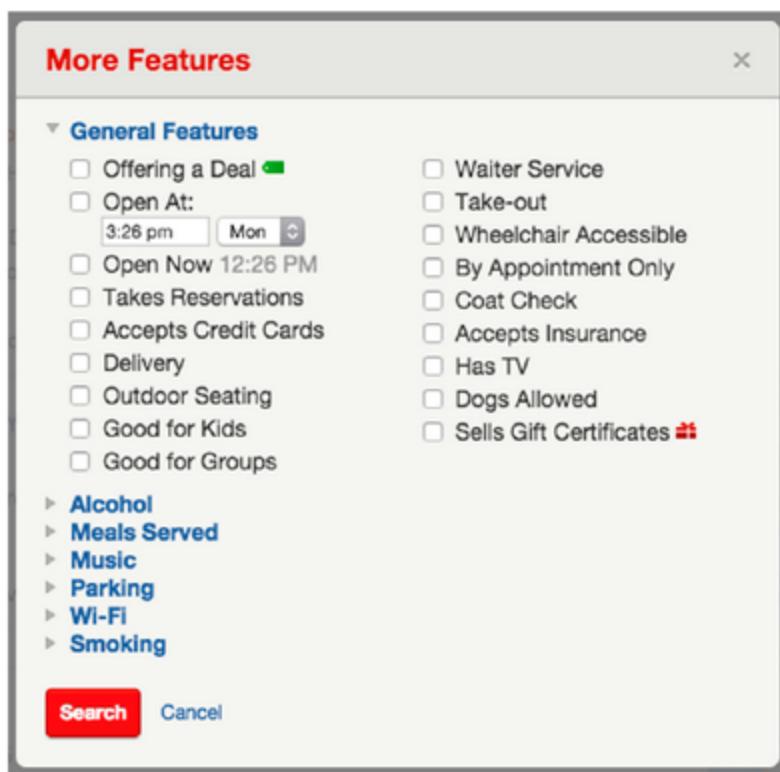


Photo credit: www.yelp.com

Users then need to click on “Meals Served” before they reveal the option to check “Dinner”:

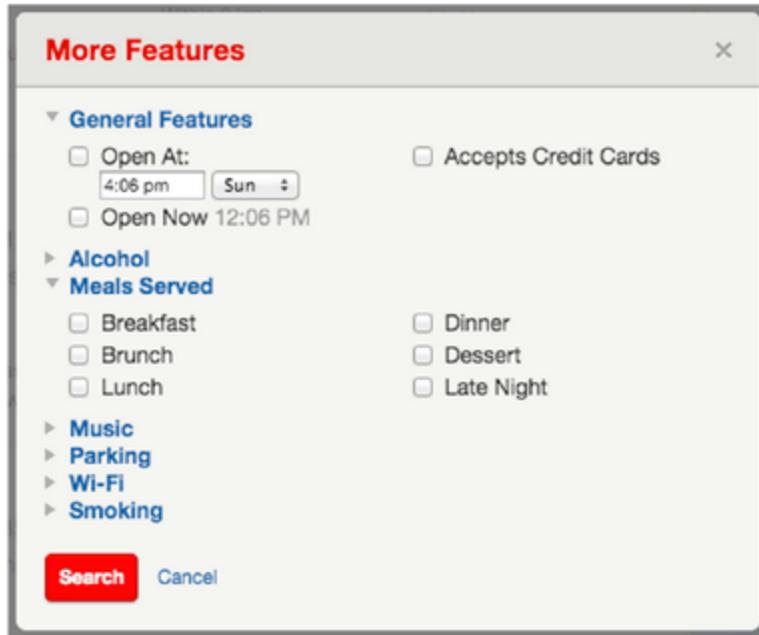


Photo credit: www.yelp.com

This is a lengthy process for users to access a filter they consider very important. Also, note that the search filters that appear on the page are repeated when you click the “More Filters” option, which also adds clutter to the page.

III. OVER 88% OF PARTICIPANTS THOUGHT 7 OF THE FEATURE FILTERS WERE “NOT IMPORTANT AT ALL”

Our other objective was to establish which search filters were considered ‘Not important at all’ by users — and which we could consider removing completely in our redesign. However, we have to be careful with our assumptions, because these things might be *more* important to *fewer* people. If this had been a real redesign (rather than exercise), we would cross-reference this finding with Yelp’s analytics that could tell us how users actually behaved.

As mentioned previously, the most unpopular search filters are also the most specific to individual preference (e.g. only dog owners will filter for pet-friendly restaurants). In fact, 92% of participants felt that “Has a DJ”, ‘Has karaoke”, and ‘Dogs allowed’ weren’t important at all. You can see data for all 7 non-important filters in the image below.

	I don't know what this option means	Not important at all	Somewhat important	Very important	unsorted
has a DJ		92%	5%	2%	
has karaoke	2%	92%	2%	2%	
dogs allowed		92%	2%	5%	
paid wifi		90%	5%	5%	
has a juke box		88%	8%	5%	
valet parking	2%	88%	8%	2%	
coat check		88%	10%	2%	

Photo credit: www.optimalworkshop.com

Nevertheless, Yelp presents all the feature filters in the pop up box as equally important, which means users need to sift through lots of features to find the ones they want. This visual clutter may put users off using the feature filters, even though it may optimize their search. This is potentially the biggest challenge in the redesign.

IV. POTENTIAL DESIGN AND RESEARCH RECOMMENDATIONS BASED ON THIS DATA

We gathered extensive quantitative data from running this survey, and we've pulled three key insights from the results that we think will help us to redesign Yelp's homepage.

Based on the insights, we could potentially focus on the following three recommendations for our redesign:

- Make the three most popular features search filters more prominent.
- Remove the most underused features search filters entirely, or redesign so that the more common filters take precedence, and the less common filters are easily accessible.
- Run a closed card sort on the categories already in place to establish which

filters should go into each category according to users. And if there are big disagreements between participants, you know you'll need to redesign the information architecture.

If you'd like to see the results in [OptimalSort](#) and draw your own conclusions from the data, feel free to email support@optimalworkshop.com.

The results of our first-click test on Yelp's homepage information architecture

We ran a first-click test using [Chalkmark](#) to help us understand whether or not the navigation labels and information architecture on Yelp's homepage were clear enough for users to quickly complete given tasks. To ensure participants focused on the IA, we encouraged them to use the navigation labels rather than the search bar.

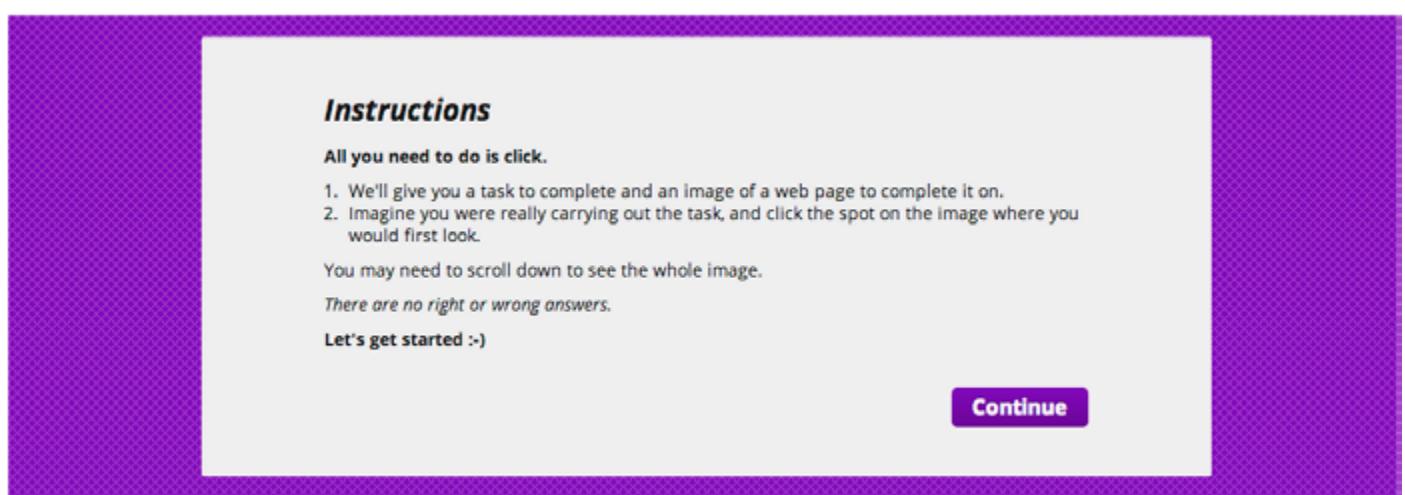


Photo credit: www.optimalworkshop.com

This study supported the qualitative study run by UserTesting, in that we had participants complete similar tasks on the same parts of Yelp's website. And we took the opportunity to get some additional insights by asking pre-survey questions.

I. 30% OF PARTICIPANTS FOUND THE WEBSITE ‘CLUTTERED’ OR ‘CONFUSING’

First-click tests are reasonably straightforward for participants to complete — this study only took the 38 participants an average of 3.8 minutes to complete six tasks on each of the six screenshots. The study’s simplicity and short timeframe therefore enabled us to ask open-ended questions before the activity, without needing to be concerned about abandonment.

We asked participants what they dislike about Yelp’s website. In terms of design, 30% of participants commented on how cluttered and confusing they found it:

‘Site seems busy and a bit dated.’

‘It’s a bit cluttered. A lot of it is really useful but it can be overwhelming the first time you use it.’

‘The navigation was a bit confusing at times’

Interestingly, all the comments include phrases like ‘a bit’, ‘sometimes’, and ‘at first’, which suggests that though people struggle initially with the busy design, they don’t find it prohibitively complex.

II. THE HEATMAPS SHOWED WIDE VARIATION ON WHERE USERS CLICKED

In the following task, we noticed that just over 50% of participants clicked in the same place, and that this pattern is representative of the distribution of clicks in the other tasks. We therefore think that’s a finding worth exploring, and we’ll use the following task as an example.

We asked participants to find a moderately priced restaurant that could seat up to 20 people.

Participants took an average of 15 seconds to complete the task — a long time in the land of the web.

In the image below, you'll see that 55% clicked the menu item 'Restaurants' on the top right corner. The other 45% clicked in many different places, including, with 'Food' being the next most popular at 16%, and then 5% of each clicked on 'Features', 'Event planning and services', and the search bar.

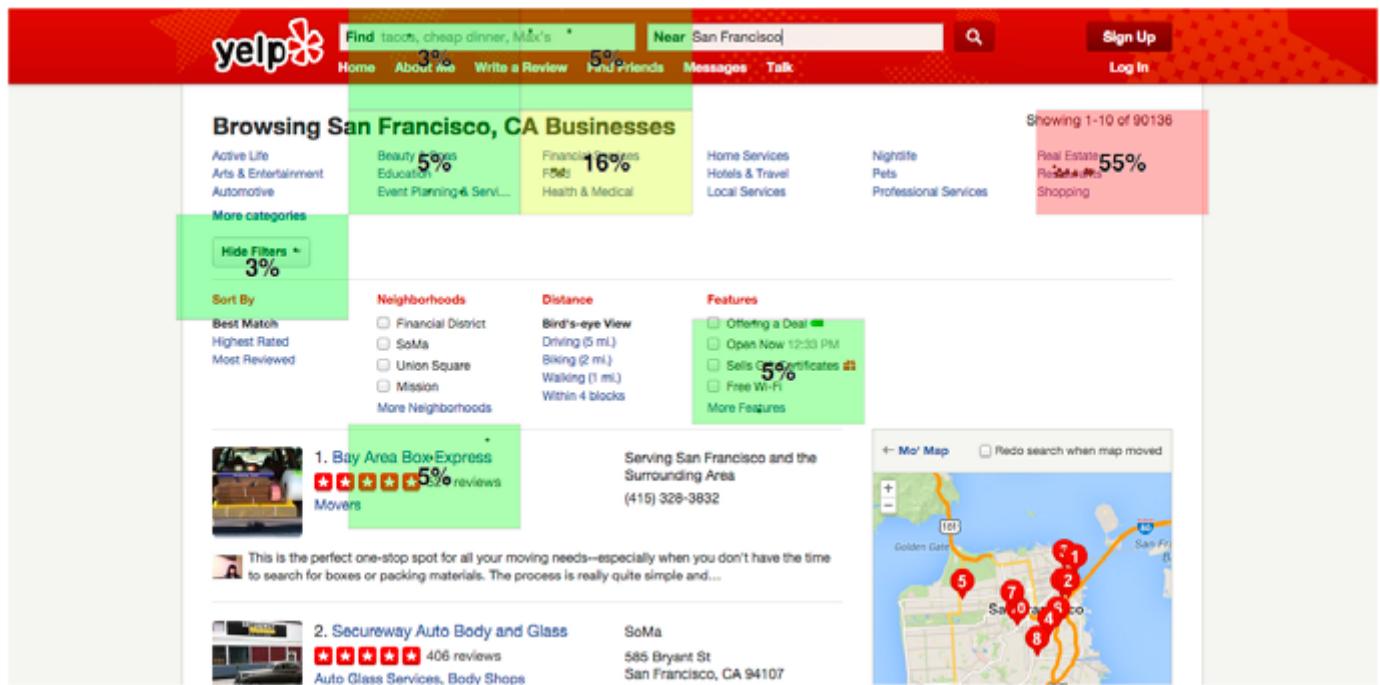


Photo credit: www.yelp.com

Having potential answers in multiple places on a page increases the cognitive load of users, and increases the chance that users will get their first click wrong. Furthermore, if you have multiple items on one page that could help participants complete one task, you could remove the more ambiguous items and use that space for other design elements or information.

III. 24% DEFAULTED TO THE SEARCH BAR WHEN LOOKING FOR A MECHANIC

We asked participants to find a mechanic in their area. Most participants went down the vertical menu of service categories on the left. Some chose to browse by services, but the most popular secondary action was still using the search bar. In the below image, you'll be able to see that:

- 53% clicked on the menu item “Automotive”
- 18% clicked on “Local Services”
- 24% clicked on the search bar

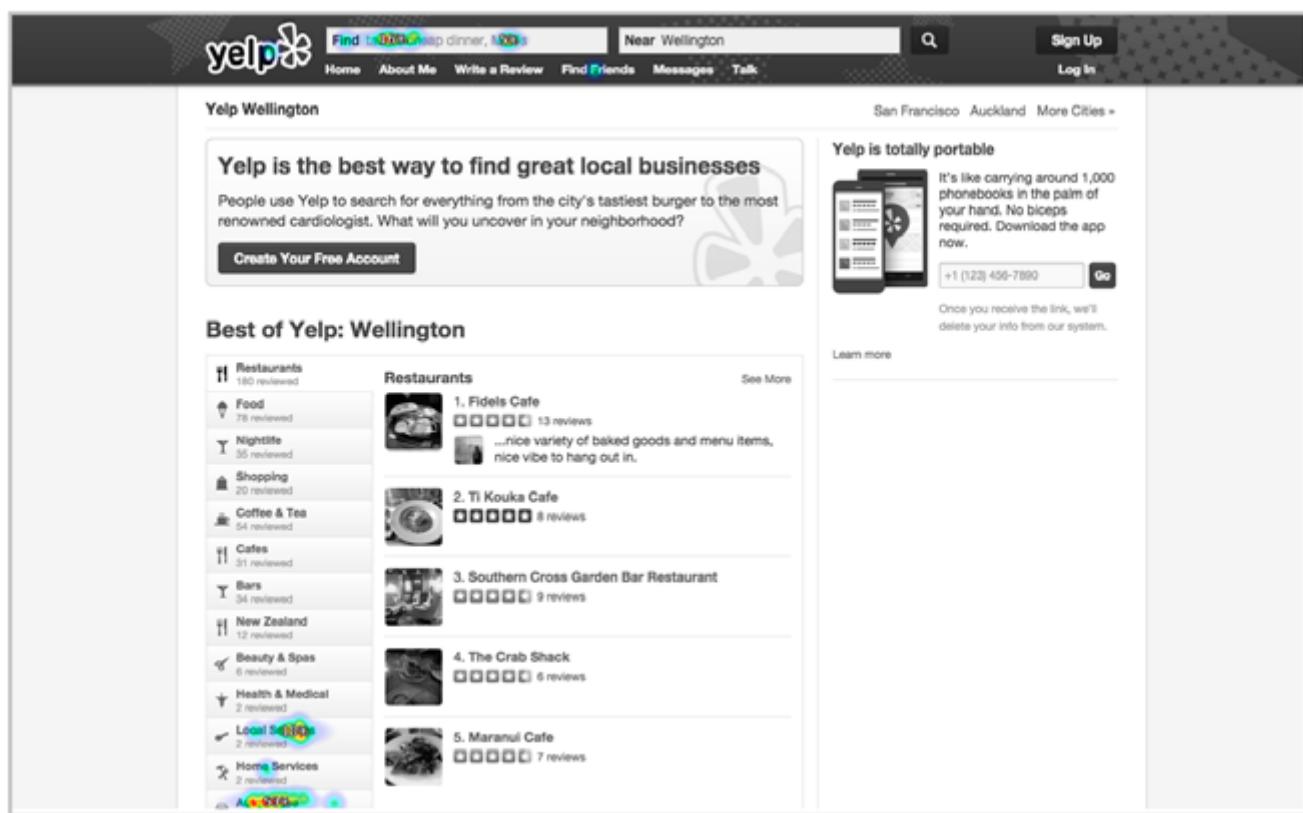


Photo credit: www.yelp.com

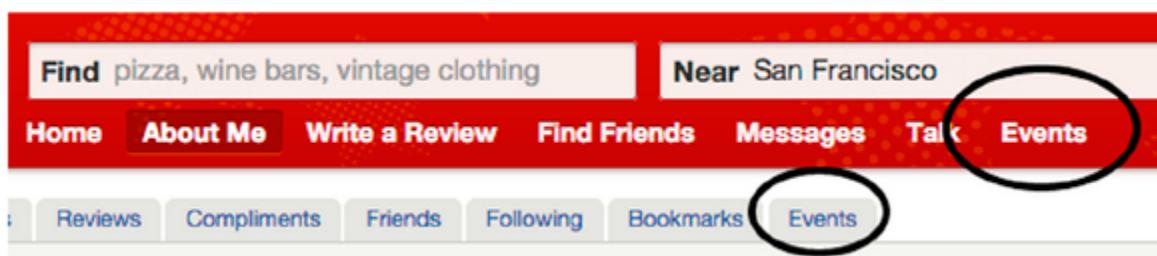
Most participants were able to find a label they considered correct on the page, but out of all the tasks, this task had the most people using the search bar. This is potentially a result of the relevant labels being a long way down the page.

Of course, this may also suggest that the users were unsure of what kind of label might represent the task they were completing, or that they didn't know Yelp allowed searches for services like that. As you can see, it's easy to come to numerous conclusions about these results, so look critically at your assumptions!

IV. THE “EVENTS” LABELS STILL CONFUSED USERS

We asked participants to find out more about a festival coming up in their city. We wanted to verify that UserTesting's data that showed participants were unfamiliar with the Events tab. We presented a screenshot of the account view this time (which includes an extra Events tab) to see if this might affect task completion. So this screen is what users would see when they are logged into their Yelp accounts.

This scenario is rooted in reality because someone may simply log in and directly look for events. In this view, the “Events” label on the top navigation takes people to the main events landing page (not the ones they've selected). To see the events they plan to attend, they need to click on the lower “Events” tab.



As you'll see in the image below:

- 37% of people ignored the “Events” label and the “Events” tab and went straight to the search bar

- 37% of people clicked on the “Events tab
- 18% clicked on Events in the main navigation

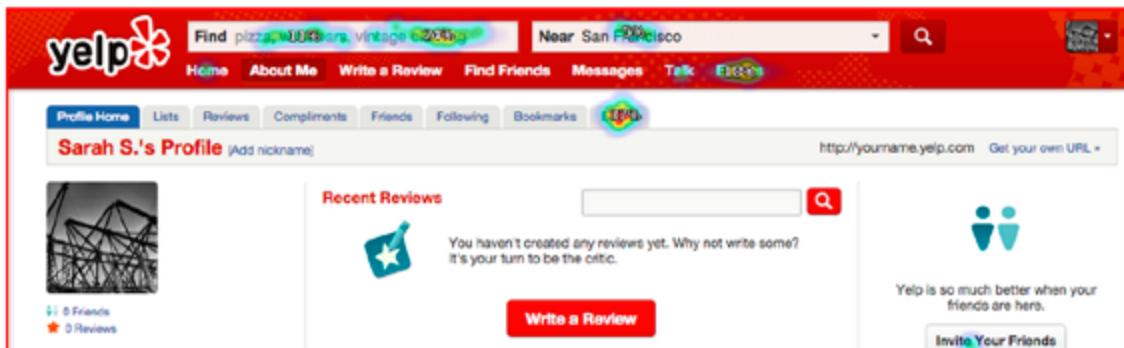


Photo credit: www.yelp.com

These results back up UserTesting’s finding that users are unfamiliar with the “Events” section. And considering events are quite a large part of what Yelp advertisers and what people attend, there’s a good opportunity in the redesign to make the “Events” tab more prominent. The results also show that the two “Events” labels did confuse users, in that the 37% of people who clicked on the “Events” tab clicked in the wrong place.

So there are two potential changes we could make how events are displayed. We could make the Events label clearer on the main navigation, so that users can find it quickly. And if the ‘Events’ is visible in two places on one page, we can make sure it’s clear where each option will take people. The situation above could potentially be resolved by changing the ‘Events’ tab to ‘Your events’, for example.

V. POTENTIAL DESIGN RECOMMENDATIONS BASED ON TEST DATA

Again, in running this study we gathered extensive quantitative data, including detailed visual information about where people clicked in response to tasks. We’ve shared some results that we think will have an impact on the redesign.

Some potential recommendations include:

- Reduce the clutter of the page to make it easier for users to read and act.
- Create clear, unambiguous labels, and remove labels that are unambiguous and lead users down incorrect paths.
- Run an [open card sort](#) on the main content to establish how users think the information could be arranged, and how they would label categories.
- Make the “Events” tab more prominent.
- Redesign the “Account” view so that there isn’t confusion between the main site menu and the account menu.

If you’d like to see the results in [Chalkmark](#) and draw your own conclusions from the data, feel free to email support@optimalworkshop.com.

Further studies on Yelp’s support site

In analyzing Yelp’s home page and search page, the Support Site also caught our eye, and we just couldn’t resist — we went ahead and redesigned its information architecture as well.

We ran a tree test using [Treejack](#) to test the information architecture, and an open card sort using [OptimalSort](#) to find out how users think the information could be categorized and labeled. We then redesigned the IA, ran another tree test, and compared the results to our initial benchmarked tree test of the existing content. The results were fascinating.

If you’re interested in reading about the support site study, email support@optimalworkshop.com and we’ll share it with you.

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CHAPTER EIGHT

User-Centered Design & Iteration

Applying qualitative and quantitative user data to design

Once you've finished analyzing the user data, it's time to put pen to paper (and mouse to screen) to start creating and revising the designs.

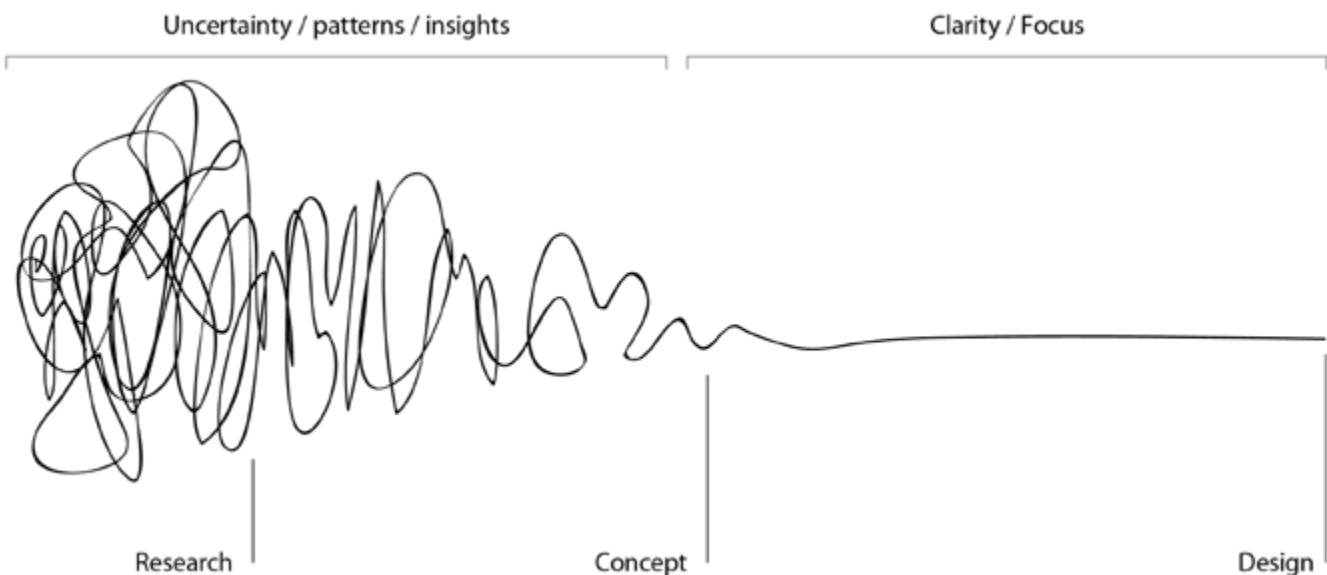


Photo Credit: [The Process of Design Squiggle](#) by Damien Newman, Central Office of Design is licensed under a Creative Commons Attribution-No Derivative Works 3.0 United States License.

As you see in the above image, all design processes distill many scattered ideas into one definitive concept that gets polished and sharpened into a final design. This single process is the DNA of design thinking. The squiggly line may twist and repeat itself many times over (depending on the overall design process), but it should always be unraveled by one clarifying force: user research and testing.

Below, we'll explain a few design processes that incorporate user testing and then explain how we incorporated the user insights into our process of sketching, wireframing, and prototyping.

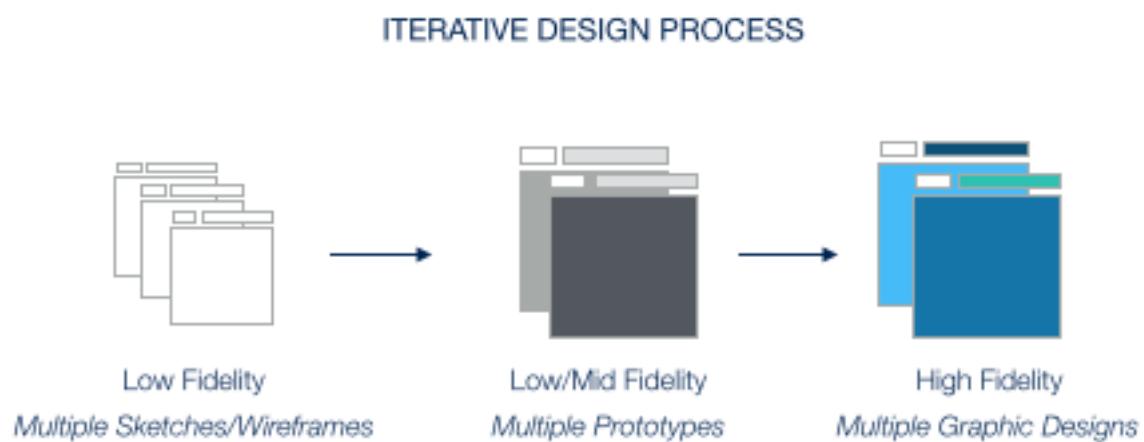
User-Centered Design Processes

In any user-centered design process, usability testing connects each major iteration. As you progress from product definition to concepting and prototyping, user feedback helps validate all major design decisions.

Jakob Nielsen, Co-founder of the Nielsen Norman Group, categorizes most design processes that involve usability testing into two categories: [iterative design](#) and [parallel design](#). While all three methods can differ quite a bit, they share the common idea that there is no single perfect user interface — and more importantly, that it's impossible to achieve good usability by simply “picking” the best idea. We'll look at each method and explain where our process for redesigning Yelp fits in.

I. ITERATIVE DESIGN PROCESS

In the iterative design process, we simply move from one design version to the next based upon insights from usability testing. Each arrow in the below graphic represents a round of testing and analysis.



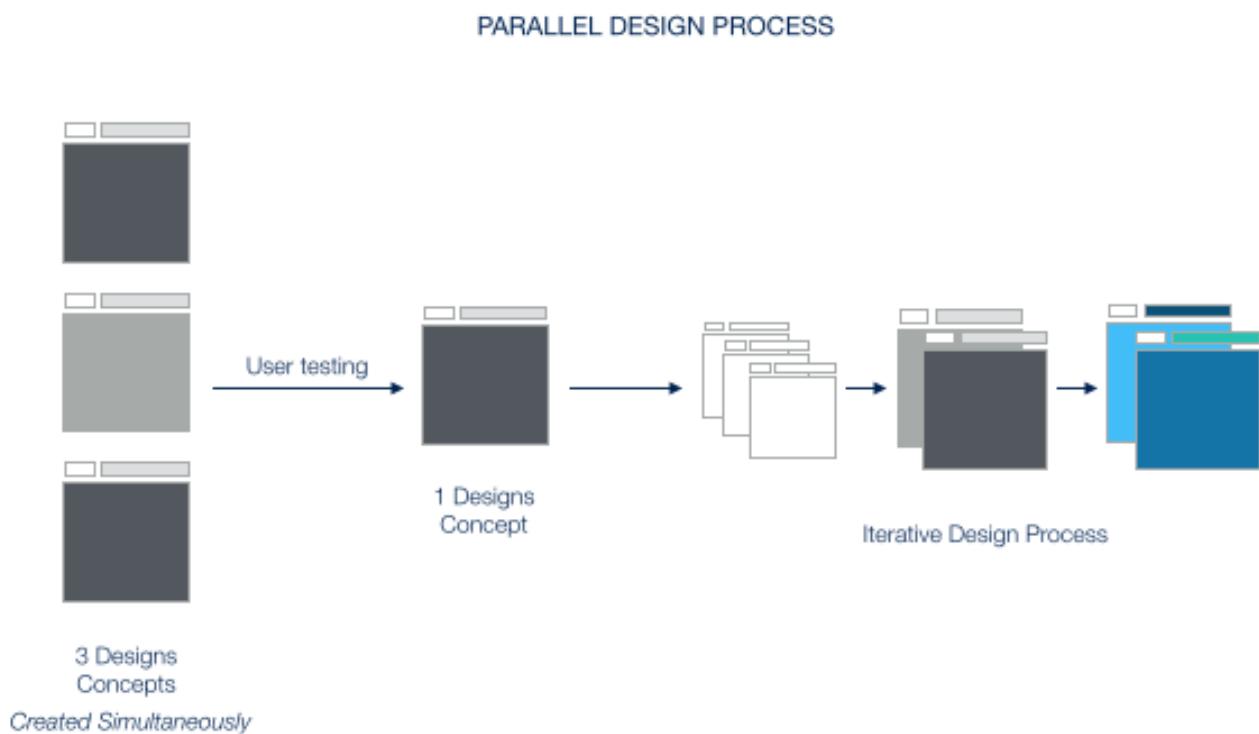
Based on: [Parallel & Iterative Design by Jacob Nielsen](#)

With this process, a minimum of two iterations is recommended for each sketch, wireframe, and mockup (to produce a first draft, followed by two redesigns). Of course, the process can be scaled up based upon size and complexity and you could easily create 5-10 iterations for each stage.

ZURB actually [follows the variation of this design process](#), similar to what we described, in which much of the iteration is front-loaded in the sketching stage before diving right into rapid low-fidelity prototyping. For them, the sketches (instead of wireframes) serve as the skeletal designs, and the design team decides which sketches make the cut for prototyping. Interestingly enough, user testing only occurs at the prototype stage. Once functionality is thoroughly tested, the fidelity of the prototype will increase with further rounds of testing and iteration until the product is finalized.

II. PARALLEL DESIGN PROCESS

Unlike the iterative process, the parallel process emphasizes broad creative thinking early on. Multiple versions of the design that differ quite a bit in terms of layout are preferred over slight iterations.



source: [Parallel & Iterative Design](#)

The multiple designs are all fairly low fidelity and aim for breadth rather than depth. One large round of user testing culls the low-fidelity herd into a single unified design. For further refinement, it's best to default to the iterative process in which small tweaks are tested with small batches of 5-10 users until the design is final.

As you can see above, this process improves rather than competes with the iterative design process. Because more creativity is allowed up front, the risk of only hitting the local maximum is decreased. Of course, the tradeoff is always time and effort.

Our Yelp redesign process was essentially a collaborative parallel process with user testing conducted in the beginning. **UXPin CEO Marcin Treder** was the lead designer, but we all collaborated in UXPin and evaluated the design at each stage. Since this was just a design exercise, we stopped after the “1 Design” step. If this was an actual redesign, our next step would be conducting further testing to refine our prototype.

Sketching

Regardless of your design process, sketching is an excellent starting point. As discussed in the [Guide to Wireframing](#), drawing is a universal language for capturing thoughts, exploring ideas, and sharing those ideas.

Laura Busche, design writer at Smashing Magazine, specifies that sketching by hand has [distinct benefits for extending memory, aiding concentration, and improving flexibility](#). Drawing by hand is also the fastest way to visualize a concept so it should always serve as your backup method.

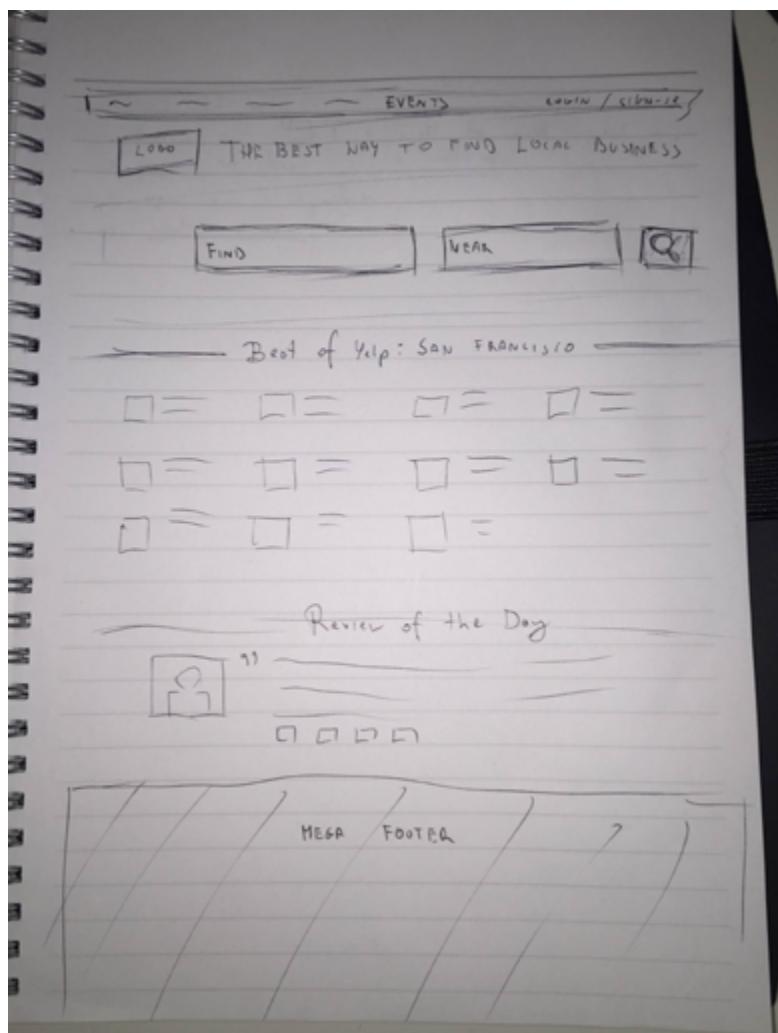
"Sketching is a universal language for capturing thoughts and exploring & sharing ideas."

 TWEET THIS

For the Yelp redesign exercise, sketching was our first step for restructuring the Yelp homepage and search results page. Each of the drawings below took Treder no more than 20 minutes and helped broaden his perspective for the next step of wireframes.

I. YELP HOMEPAGE

It took two iterations before the sketch for the Yelp homepage was finalized. As you can see in the final iteration below, we kept it very low fidelity and focused only on structure.



The sketch addresses some primary usability concerns revealed from testing the homepage:

- **Increasing prominence of Search bar** — Our testing showed that the Search bar was one of the most popular functionalities on the site. In the sketch, it has been placed in the center of the page instead of just sitting at the top.
- **Make it easier to find an event** — The usability tests showed that almost nobody used the Events tab, and when they did, they found it confusing. As such, our initial drawing rearranges it to the center of the top navigation so it's at least more noticeable.
- **Streamline the categories** — Testing revealed that users found categories “overwhelming”, which is why they relied so heavily on the Search bar. To remedy this, our sketch presents them in a Card format rather than a List format (you can learn about the use cases for each of these UI patterns in [Web UI Patterns 2014](#)).

Additionally, we also added a footer (for secondary SEO content like listings for cities) and simply moved the “Review of the Day” from the right to the bottom of the page.

II. YELP RESULTS PAGE

Because the results page contains less variety of information than the homepage, it only took us one iteration to sketch out the new design.



In the sketch, we focused the following usability concerns for the results page:

- **Photos must be more prominent** — When asked to find a restaurant with a certain ambiance, three of the five users in the filmed user tests depended on photos. The photos on the results page are currently quite small, so we enlarged them.
- **Define the price categories** — When asked to search for a restaurant of a certain price range, two of the five users weren't sure what the dollar symbols represented. Above, you can see that we initially thought about just listing the price.

We addressed the rest of the usability concerns about the feature filters and “Sort By” options with wireframing, the next step of our design process.

Wireframing

The goal of wireframing is to create the skeleton of the design. More fidelity is added, and the structure becomes more defined as we move into [UXPin](#) for digital wireframing.

As discussed in the [Guide to Wireframing](#), there's quite a bit of debate between low versus high fidelity wireframing. We prefer low-fidelity wireframing since we want to focus only on structure and add fidelity later in the prototyping stage. Low fidelity wireframing helps us focus on high-level concepts like the naming of labels and visual hierarchy. While we addressed some usability concerns in the sketches, our wireframes would be more comprehensive.

"Wireframes are the skeleton of your design. Mockups are the skin."

 TWEET THIS

I. YELP HOMEPAGE

Given the complexity of the current Yelp homepage, our wireframing required four iterations. In addition to fixing usability issues, we also wanted to preserve the SEO aspects (such as listing other cities) because that is valuable to Yelp as a business. We'll focus on the final iteration below, which you can [access in this preview](#) (fully annotated) and follow along.

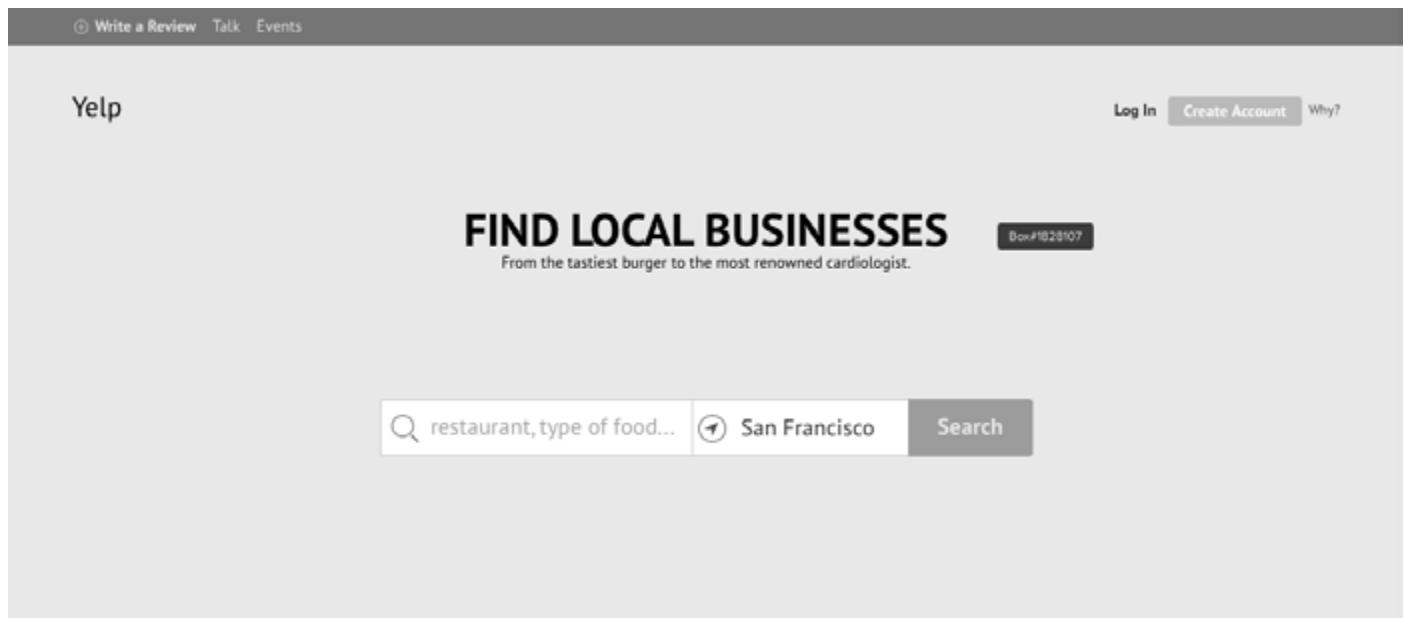
1. IMPROVING THE SEARCH BAR

Current Design



The search bar currently sits at the top of the page.

Revised Wireframe



source: [UXPin Yelp Redesign](#)

You can see how we added more fidelity to the new search bar, but also gave it more “breathing room” to stand out (a very effective tactic described in [Web UI Best Practices](#)). This minimalist treatment is much more effective than the previous cluttered layout. Because writing a review is a core interaction for Yelp, we also added a “Write a Review” button in the top left corner.

2. MAKING THE CATEGORIES LESS OVERWHELMING

As we touched on earlier, the biggest design change was revising the categories from a List layout to a Cards layout.

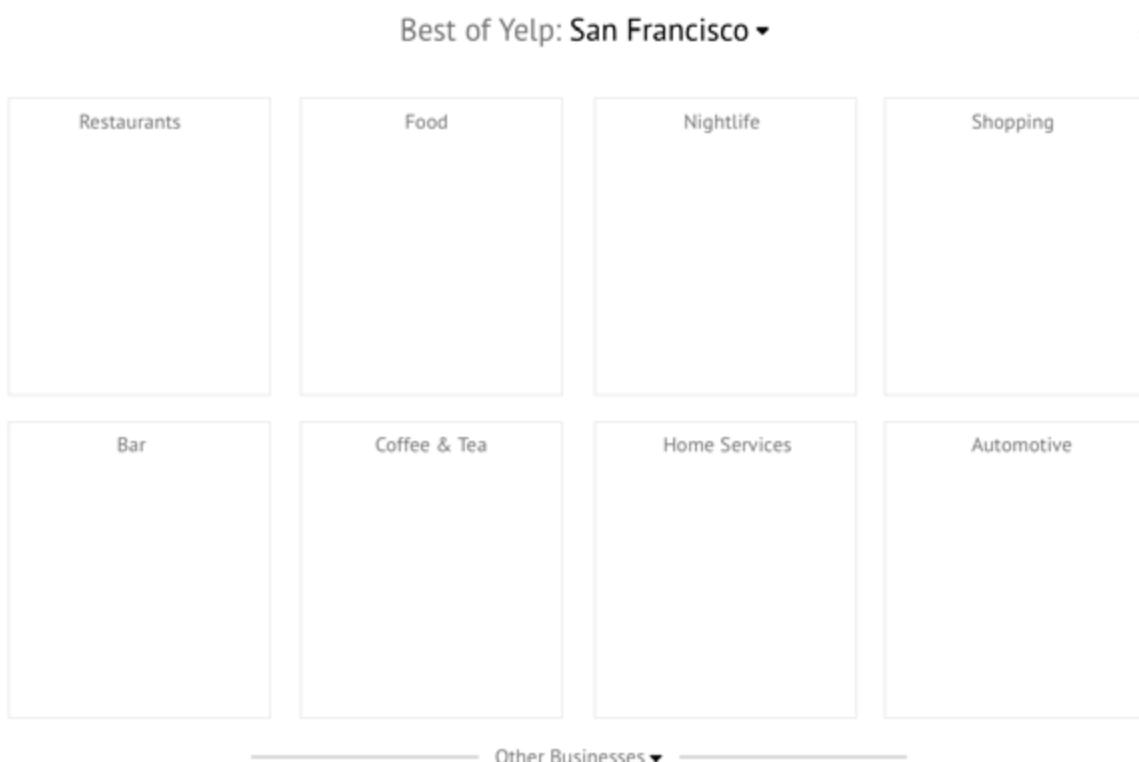
Current Design



Photo credit: www.yelp.com

Currently, categories sit $\frac{2}{3}$ down the page off on the left. They are also listed vertically (nearly double the length shown here), which users said felt overwhelming.

Revised Wireframe



source: [UXPin Yelp Redesign](#)

As described in [Web UI Patterns 2014](#), the Cards pattern is great for displaying a wide range of information in a way that isn't just an ocean of text. Our revised design is more visual and only presents 8 categories at once. To reveal more, users would simply click on "Other Businesses". We also moved this near the top $\frac{1}{3}$ of the page for greater visual emphasis.

3. MAKING IT EASIER TO FIND EVENTS

If you reference back to the screenshot of the new Search bar, you'll see that the top navigation also includes "Events" in the left corner. This was the first step to making it more noticeable. Now we'll show you the more drastic center-of-page revised layout.

Current Design

The screenshot shows a feed of posts from Jeanie L. and Jessica T. on the left, each with a photo and caption. On the right, there is a sidebar titled "Popular Events" listing three events with small icons, dates, and times. A "More Events" link is at the bottom of the sidebar.

Popular Events

- Yelp's Hot for the Holidays Event Series - South Bay**
Saturday, Nov 1, 12:00 am – Monday, Dec 1, 11:30 pm
188 are interested
- Santana Row's Tree Lighting Ceremony w/Vernon Davis**
Tuesday, Nov 18, 5:00 pm – Wednesday, Nov 19, 9:00 pm
55 are interested
- Yelp's Hot For The Holidays: Sweat Sesh @ ClubSport Pleasanton**
Wednesday, Nov 19, 6:00 pm – 7:30 pm
20 are interested

Photo credit: www.yelp.com

Currently, Events are either hidden on the far right in the top navigation (not shown here) or pushed away to a sidebar in the middle of the scroll.

Revised Wireframe

The wireframe shows a single card for an event titled "Yelp's Hot For The Holidays: Free Tickets to the Great Dickens Christmas Fair". It includes the date, location, a descriptive paragraph, the number of attendees, and a "Join Event" button.

Yelp Events
Become part of an amazing community!

Yelp's Hot For The Holidays: Free Tickets to the Great Dickens Christmas Fair
Sunday, November 23, 11:00 am - Cow Palace, Daly City, CA

Need a cure for the holiday humbug? Never fear, Yelp is here! We are giving away 20 free pairs of tickets to one of the hottest festivals in town! ABOUT HOF FOR THE HOLIDAYS: Open to all...

123 Yelpers attending. Join: [Join Event](#)

source: [UXPin Yelp Redesign](#)

Our revised layout places Events in the center of the scroll. We could either insert a feature photo to the left of the text, or have a video playing in the background. From a business standpoint, we wanted to emphasize events because Yelp uses it to great business advantage by throwing special events for its Elite users (an effective user retention tactic).

4. REDUCING OVERALL CLUTTER

In our [first-click testing](#), we found that 30% of users said the current design was cluttering and confusing. While they didn't find the layout prohibitively complex, reducing clutter would better emphasize the important UI elements.

Current Design

The screenshot shows the Yelp mobile website interface. At the top, there's a red header bar with the Yelp logo, search bars for 'Find tacos, cheap dinner, Max's' and 'Near San Jose, CA', and a search icon. Below the header are navigation links: Home, About Me, Write a Review, Find Friends, Messages, Talk, and Events. The main content area starts with a section titled 'Your Next Review Awaits' featuring a review card for 'Alexanders Steakhouse'. This card includes a small thumbnail image, a 5-star rating, and a button to 'Start your review...'. To the right of this is a user profile for 'Jerry G.' from Irvine, GA, showing 77 check-ins, a 7-star rating, 13 useful votes, 7 cool votes, 30 funny votes, and 3 compliments. Below Jerry's profile is a 'Notifications' section with 2 new friend requests and 2 new compliments. The next section is 'Recent Activity', which displays a post by 'Shawn P.' adding 5 photos for 'All The Buzz'. The post includes a thumbnail of a gift basket and a timestamp of '5 minutes ago'. Further down is a 'Review of the Day' for 'Elaine N.' reviewing 'Matcha Love', which includes a thumbnail, a 5-star rating, and a quote: 'Matcha Love, I heart you!'. Below this is a 'Popular Events' section with entries for 'Yelp's Hot for the Holidays Event Series - South Bay' and 'Santana Row's Tree Lighting Ceremony w/Vernon Davis'. At the bottom of the page, a note says 'Photo credit: www.yelp.com'.

Revised Wireframe

Nearby cities: San Jose Mountain View New York Los Angeles Chicago Palo Alto More Cities »

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Lists

 **The Good**
Theme parks and National treasures. Aren't they the same

 **The Good**
Theme parks and National treasures. Aren't they the same

 **The Good**
Theme parks and National treasures. Aren't they the same

Popular Events

 **Unofficial Yelp Event: Hot for the Holidays with Hendrick's Gin**
61 are interested

 **Unofficial Yelp Event: Hot for the Holidays with Hendrick's Gin**
[Report abuse](#) [Copy \(7\)](#)

 **Unofficial Yelp Event: Hot for the Holidays with Hendrick's Gin**
61 are interested

San Francisco Neighborhoods

Bayview-Hunters Point	Inner Richmond	Nob Hill	Outer Sunset	Union Square
G Castro	Inner Sunset	North	Pacific Heights	More Neighborhoods
Financial District	Marina/Cow Hollow	Beach/Telegraph Hill	Potrero Hill	
Hayes Valley	Mission	Outer Richmond	SoMa	

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Weekly Yelp



Get the skinny every week on local business gems and events in San Francisco.

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source: [UXPin Yelp Redesign](#)

Any secondary items like Popular Events or Lists (which the usability testing indicated was never even used) were moved to a newly-created footer. This footer also held items that were more for SEO (like listing different neighborhoods).

II. YELP RESULTS PAGES

Because the results pages were less complicated, our redesign required only two iterations. We'll focus on the final iteration below, which you can [access in this preview](#) (fully annotated) and follow along below.

1. IMPROVING FILTERS & SORTS

Our usability tests revealed that the hierarchy and nomenclature of the “Feature Filters” and “Sort By” could be significantly improved. As you might recall, we found that the most important feature filters were “Open Now”, “Accepts Credit Cards”, and “Serves Dinner”. Pricing was also confusing, and 7 Features filters weren’t considered important at all.

Current Design

Browsing San Jose, CA Businesses						Showing 1-10 of 89379
Active Life	Beauty & Spas	Financial Services	Home Services	Pets	Religious Organizations	
Arts & Entertainment	Education	Food	Hotels & Travel	Professional Services	Restaurants	
Automotive	Event Planning & Serv...	Health & Medical	Local Services	Real Estate	Shopping	
More categories						
Hide Filters ▼						
Sort By	Neighborhoods	Distance	Price	Features		
Best Match	<input type="checkbox"/> Downtown	Bird's-eye View	<input type="checkbox"/> \$	<input type="checkbox"/> Offering a Deal 		
Highest Rated	<input type="checkbox"/> North San Jose	Driving (5 mi.)	<input type="checkbox"/> \$\$	<input type="checkbox"/> Online Reservations 		
Most Reviewed	<input type="checkbox"/> Cambrian Park	Biking (2 mi.)	<input type="checkbox"/> \$\$\$	<input type="checkbox"/> Open Now 7:49 PM		
	<input type="checkbox"/> Blossom Valley	Walking (1 mi.)	<input type="checkbox"/> \$\$\$\$	<input type="checkbox"/> Sells Gift Certificates 		
	More Neighborhoods			More Features		

source: [Yelp](#)

Yelp's current sorts and filters lack hierarchy (all items seem to be scattered), which was counterintuitive to the behavior we saw in usability testing. It's not even possible to sort by meal unless you click "More Features" and then select from a long menu.

Revised Wireframe

Restaurant in San Francisco

1-20 of 1400 Results

Categories

Active Life	Beauty & Spas	Financial Services	Home Services
Art & Entertainment	Education	Food	Hotels & Travel
Automotive	Event Planning & Svri..	Health & Medical	Local Services

Neighbourhood [\(more\)](#)

<input type="checkbox"/> Financial District	<input type="checkbox"/> Union Square	<input type="checkbox"/> \$ (\$10/person)	<input type="checkbox"/> \$\$\$ (\$30/person)
<input type="checkbox"/> SoMA	<input type="checkbox"/> Mission	<input type="checkbox"/> \$\$ (\$20/person)	<input type="checkbox"/> \$\$\$\$ (+\$40/person)

Food served [\(more\)](#)

<input type="checkbox"/> Servers breakfast	<input type="checkbox"/> Servers lunch	<input type="checkbox"/> Take out	<input type="checkbox"/> Sells Gift Certificates
<input type="checkbox"/> Servers brunch	<input type="checkbox"/> Servers dinner	<input type="checkbox"/> Accepts credit cards	<input type="checkbox"/> Offering a Deal

Sort By: [Best Match](#) [Highest Rated](#) [Most Reviewed](#) [Open Now Only](#) Hide ▾

source: [UXPin Yelp Redesign](#)

The revised wireframe isolates the most important filters and restructures the entire section into squares. Each filter category only includes four options, which visually organizes all the possible choices. Since 90% of users felt “Open Now” was the important filter, we actually let it stand as a separate item for added emphasis.

Pricing is clarified with dollar ranges and the 7 unimportant filters are hidden. It’s important to note here that we also made the pricing category specific so that the dollar ranges would be different if you were browsing for a mechanic.

2. IMPROVING LAYOUT OF SEARCH LISTINGS

Now that we streamlined the filters and sorts, we also needed to reshape how the results appear. For this part of the redesign, we leaned more on qualitative feedback.

Current Design



1. **Philz Coffee**
★ ★ ★ ★ 1363 reviews
\$ - Coffee & Tea
Reviewed by 1 friend

Downtown
118 Paseo De San Antonio Walk
San Jose, CA 95112
(408) 971-4212

 I tried the mint mojito philtered soul iced coffee- heavenly. • Philtered Soul and Silken Splendor mixed is really, really good. • Very relaxed atmosphere and great alternative to...

Photo credit: www.yelp.com

A majority of users relied on photos to determine ambiance, yet the thumbnails in the listings are too small. You also can’t save businesses for later reference (33% accomplished the task but complained about difficulty, while 67% failed or gave up).

Revised Wireframe

The wireframe illustrates a refined user interface for a local business listing. The layout includes a prominent thumbnail image, a clear title, a detailed description, and essential contact information. The 'Save for later' button is integrated directly into the listing card.

source: [UXPin Yelp Redesign](#)

We enlarged the thumbnail and layered a “Save for Later” button on top for easy bookmarking. We also restructured the layout to better closely resemble an [F Pattern](#) for easier scanning and isolated the address and phone number (since those are important pieces of standalone information).

Low & High Fidelity Prototyping

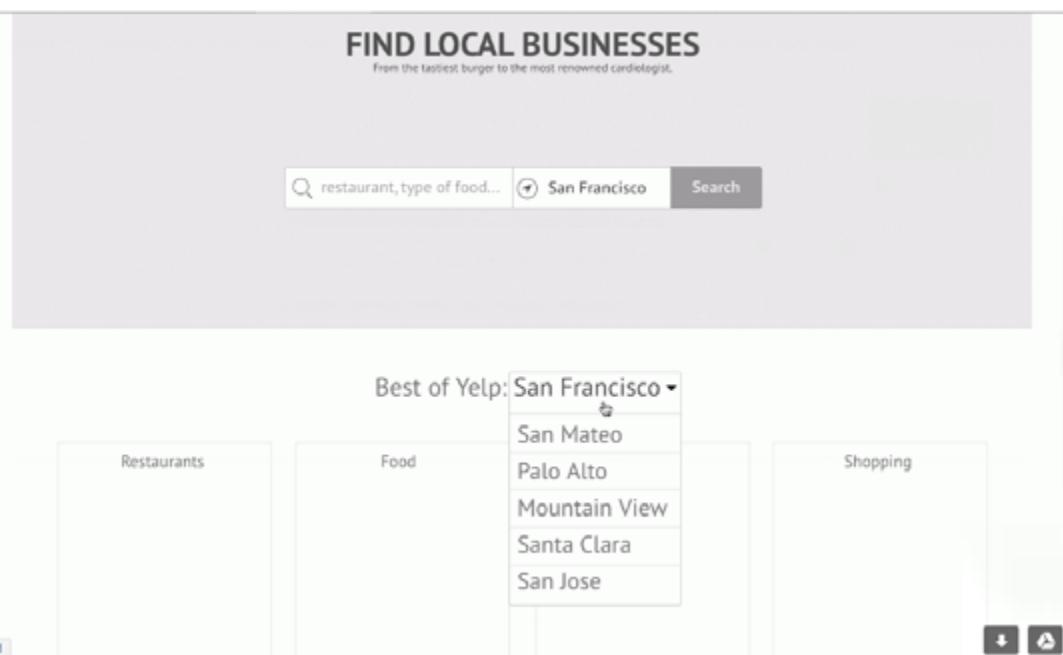
Once we finished most of the structural redesign in our wireframing stage, it was time to bring the new layout to life through prototyping. As discussed in the [Guide to UX Design Process & Documentation](#), wireframes are all about structure but prototyping is about the experience.

Just like wireframing, prototyping can be either low fidelity or high fidelity. Low fidelity prototyping helps you focus on functionality early in the process (which also lets you conduct usability testing earlier). High fidelity prototyping, on the other hand, lets you get as close to the real product as possible without investing heavily in programming resources (especially if you use programs like UXPin or Invision).

I. LOW FIDELITY PROTOTYPES

When you hear the terms Lean UX and rapid prototyping being thrown around, it usually involves low fidelity prototypes. Going low fidelity helps avoid the problem of obsessing over visual minutiae before the functionality and interactions are refined. **Andrew Chen, notable entrepreneur and growth writer**, is a huge advocate of going low fidelity because it helps you [incorporate the customer into design earlier](#).

Because low fidelity prototypes are inherently unfinished, people will provide more honest feedback on core features and the overall design flow — instead of commenting on how the colors might not look right or the font is not the right style. It's also cheaper to iterate and make mistakes, since you could create 10-20 variations of a low fidelity prototype for user testing (and get more insights than 2-5 pixel perfect prototypes).



For our purposes, we started in low fidelity for exactly the same reasons we described above. In [UXPin](#), we simply added a few animations and interaction into the elements of the existing wireframe. As you can see in our [live prototype](#) (feel free to click around), our low-fidelity prototyping served more as a

sanity check. Regardless of how structurally sound your wireframe might be, the real moment of truth is how smooth the experience feels once you throw interactions and animations into the mix.

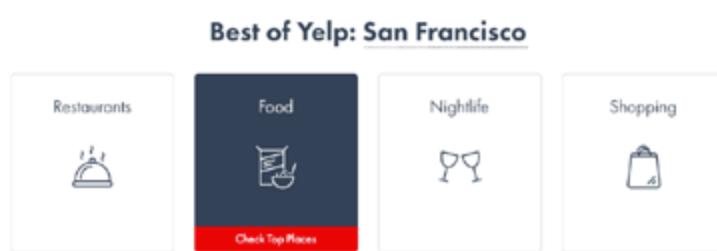
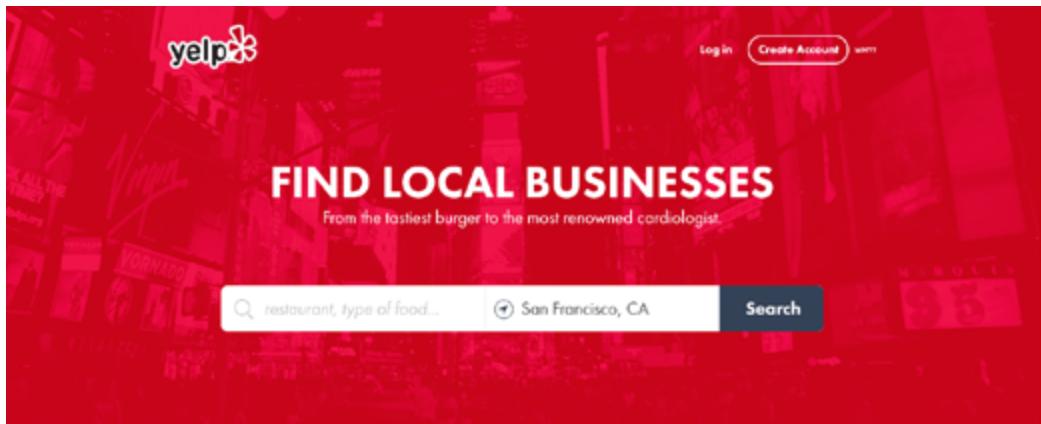
"The real moment of truth comes when you add interactions to your wireframes."

 TWEET THIS

You can see all the interactions that we prototyped by viewing [this GIF](#) of our final iteration. We wanted to ensure that browsing categories, selecting filters, and switching between the homepage and search results page was an overall smooth experience. If this was more than an exercise, our next step would be testing the low fidelity prototype with users and then iterating once more.

II. HIGH FIDELITY PROTOTYPES

On the other hand, high fidelity prototyping is better when you are in the later stages of design and iterating on things like look and feel, typography, branding, and other details. **Marty Cagan, Partner at the Silicon Valley Product Group**, believes that high fidelity prototypes developers to [uncover what's needed for a feasible product](#).



source: [UXPin High-Fidelity Yelp Prototype](#)

Our process followed the [iterative guidelines outlined by Smashing Magazine](#) since our high-fidelity prototype simply layered visual detail on top of its predecessor. Wireframing laid out the structure, low-fidelity prototyping created the experience, and now high-fidelity prototyping would add the final finesse. We added fidelity within UXPin by using our library of UI elements. Whatever could not be created in-browser was designed in Photoshop or Sketch and then imported directly into UXPin through the [drag & drop functionality](#). The layers were preserved, so we only had to click on the elements and add interactions.

"Wireframing creates structure. Prototyping creates experiences."

 TWEET THIS

To play with the high fidelity prototype, check out the live preview. Again, if this had been more than an exercise, we would have tested the new high-fidelity prototype against the same tasks and iterated as needed.

Design, Test, Iterate, Repeat

By now, you've seen the full process of how to incorporate usability testing into the design process. While you don't need to follow every step of what we described, we highly recommend that every design process incorporates user testing as a connecting stage between low fidelity to high fidelity and the final product.

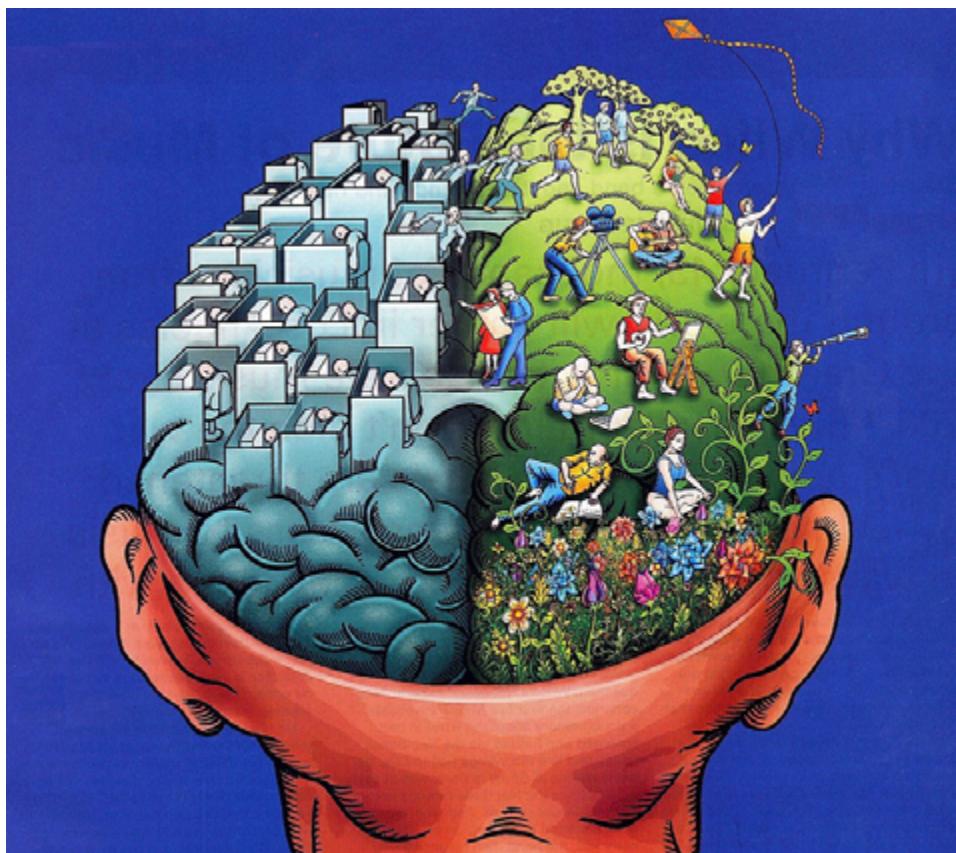


Photo credit: [PinkPersimon](#). Creative Commons

The mind of a user is a complex place, but usability testing lets you sneak a peek into how your design can fit naturally into human cognitive processes. While we've only incorporated a couple of the dozens of available usability testing tactics, you can see how just 3 quick tests can reveal insights that lead to sleeker and more usable designs:

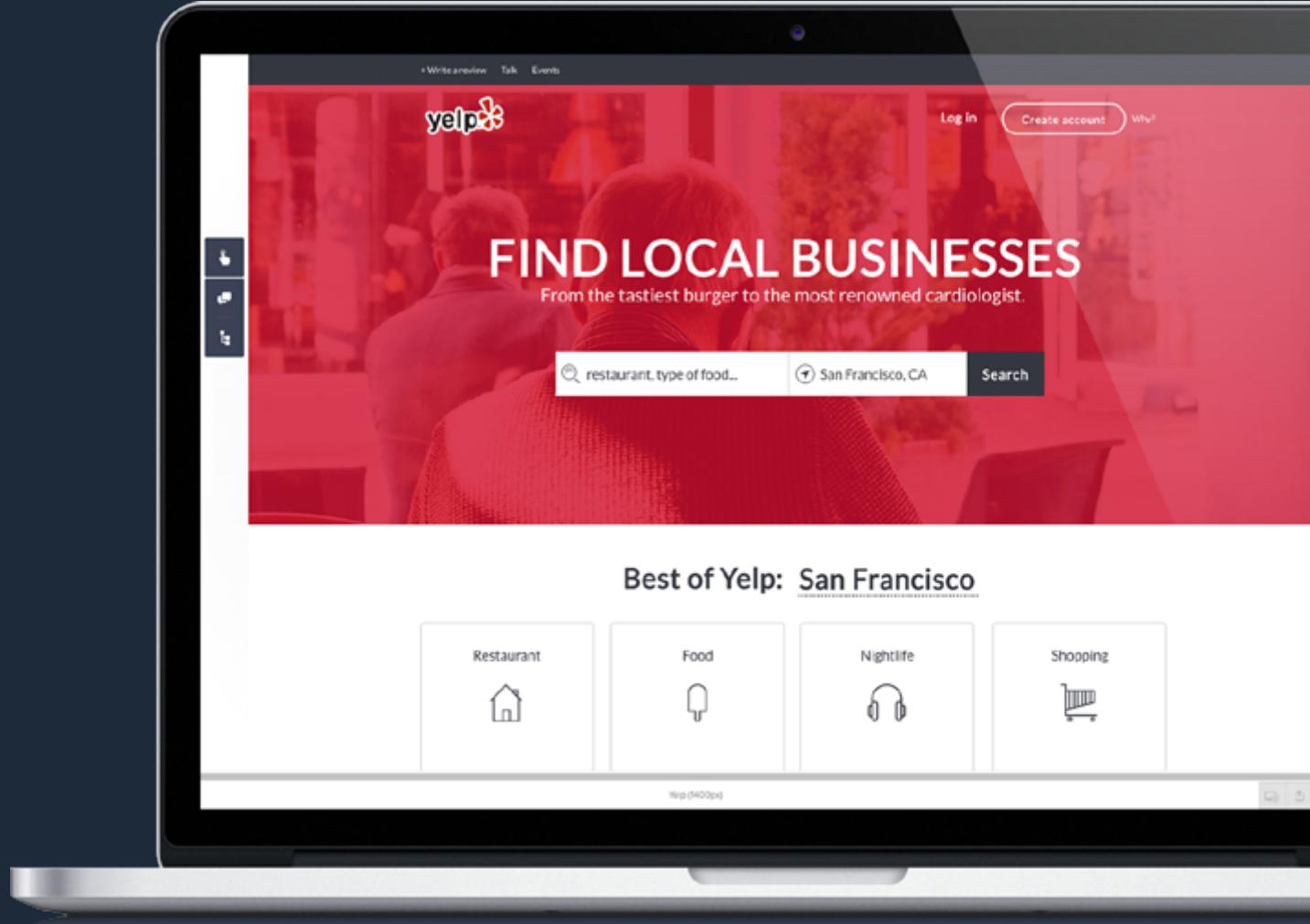
- [Low Fidelity Prototype](#)
- [High Fidelity Prototype](#)

The biggest challenge designers and product managers face isn't how the market or different technologies work — it's how humans work. What users say versus what users do are two completely different things, and the only way to verify is to test. Usability testing is more than a just a checkbox on a list of product requirements — it is the most convincing support for your design decisions.

After all, if you aren't designing for users, then you're only designing for yourself.

"If you aren't designing for users, you're only designing for yourself."





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