

ITI0209: User Interfaces

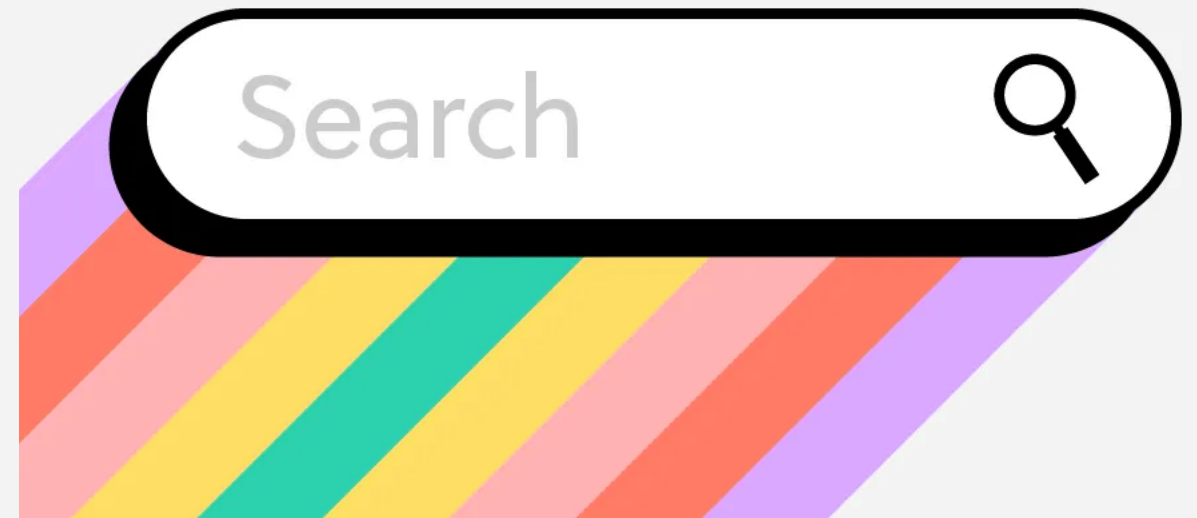
10. Search. Filters. Sort

Martin Verrev

Spring 2026

Success in modern UX isn't about having the most content. It's about having the most findable content. Yet even with more data and better tools than ever, internal search often fails, leaving users to rely on global search engines to find a single page on a local site.

Source: <https://www.smashingmagazine.com/2026/03/site-search-paradox-why-big-box-always-wins/>



69% of online shoppers go straight to the search bar when visiting ecommerce sites

Up to 80% of users will leave the site if the search experience isn't up to par.

Successful searches result in up 2x better conversion rates.

On average, users give up after 8 seconds of trying to find something.

What frustrates consumers most about on-site ecommerce search?*

Failings of on-site search	% of consumers that are frustrated by this
Irrelevant results being shown	41%
When products are shown in search results despite not being in stock	32%
Not being able to narrow results down due to a lack of appropriate filters (e.g. not being able to filter by 'cut' for jeans, or by 'finish' for lipsticks)	30%
Results taking too long to load	27%
When it can't interpret queries (i.e. cannot acknowledge synonyms e.g. 'couch' for 'sofa', or tolerate spelling mistakes and typos e.g. 'smarthpone' for 'smartphone') and therefore can't yield desired results	26%

The Search Form

... is arguably one of the most important UI elements

- Provides navigation to site users.
- Provides user insights to site owner.

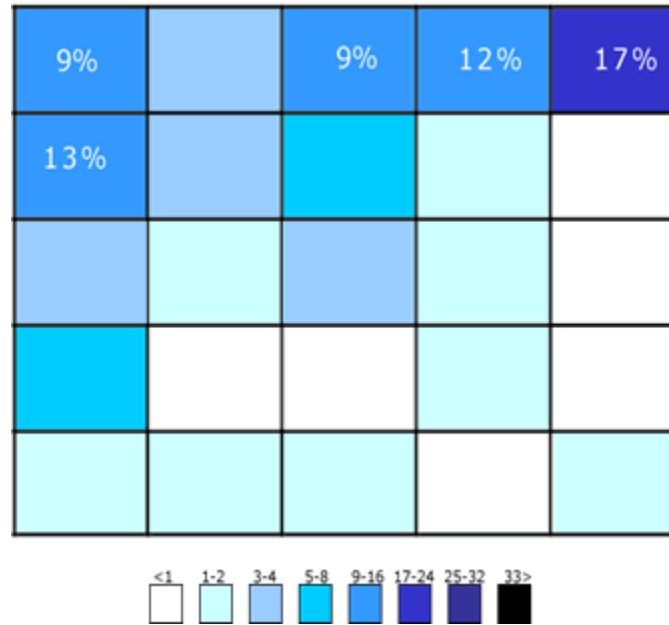
```
<input type="search">
```

Search

Search

Placement

- Typically placed within the header. Like navigation, this makes it easily discoverable and quick to access.
- The challenge is that it is hard to fit the search form inside the header along with everything else.

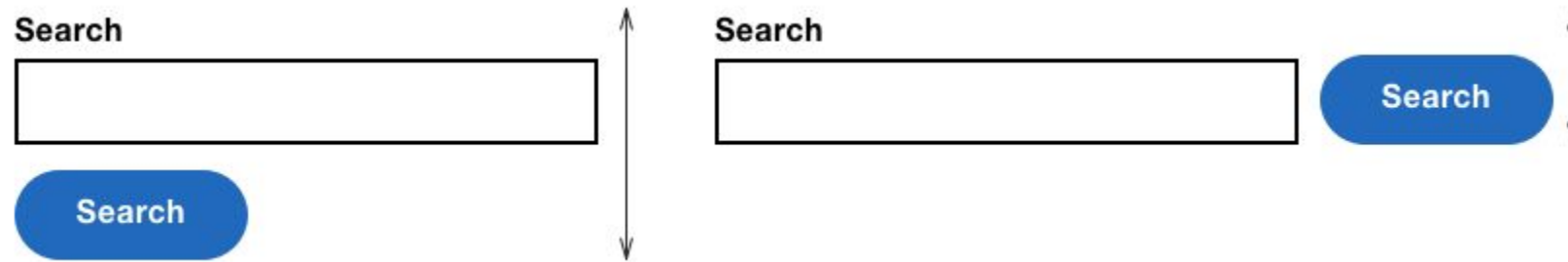


The figure illustrates the areas where participants expected the search to be found. The upper-right corner is still the first place users expect to find search.

Source: <https://uxplanet.org/design-a-perfect-search-box-b6baaf9599c>

Reduce space used

- Place submit button inline

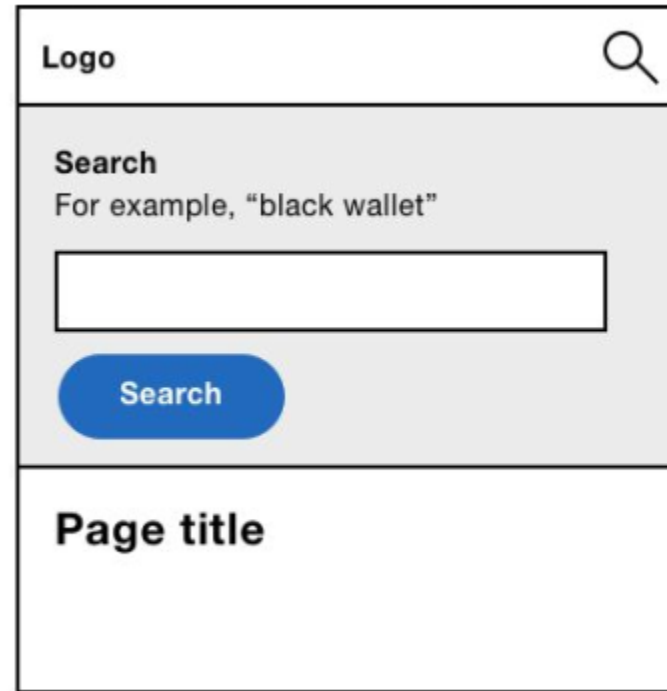


- Consider hiding the label.
- Avoid removing submit button
 - Without button you cannot use it as a label.
 - Button is a fundamental part of form.
 - If search has more than one field it does not work.

Better solution



→
Click icon



Displaying Search Results

1. **Maintain search text.** When the user arrives at the search page, what they typed should persist. This way users can make tweaks without having to retype the entire query.
2. **Display result count.** Tell users how many results have been returned. A simple approach would be to update the page's `<title>` text to read.
3. **Let users sort.** Depending on the dataset being searched, it's often useful to let users sort by relevance, popularity, or recency, for example.
4. **Don not employ infinite scrolling by default.** “Show more” is more appropriate for if location of result is not important. Pagination is more appropriate if users are looking for a specific item, not just browsing for entertainment.

Search Form Checklist

- Search everything, not just what's stored in a database. If search is performed only on specific part of site, e.g products, indicate it clearly.
- Use the `role="search"` landmark to help screen reader users access search quickly.
- If the form can't fit easily in the header, let users toggle its display with JavaScript.
- When displaying search results, avoid infinite scrolling.

Search

Bad

Product search

Good

"For most users of consumer-facing ecommerce applications, the difference between a sort and a filter presents a mystery they understand dimly, if at all."

The Mystery of Filtering by Sorting

<https://www.uxmatters.com/mt/archives/2009/07/the-mystery-of-filtering-by-sorting.php>

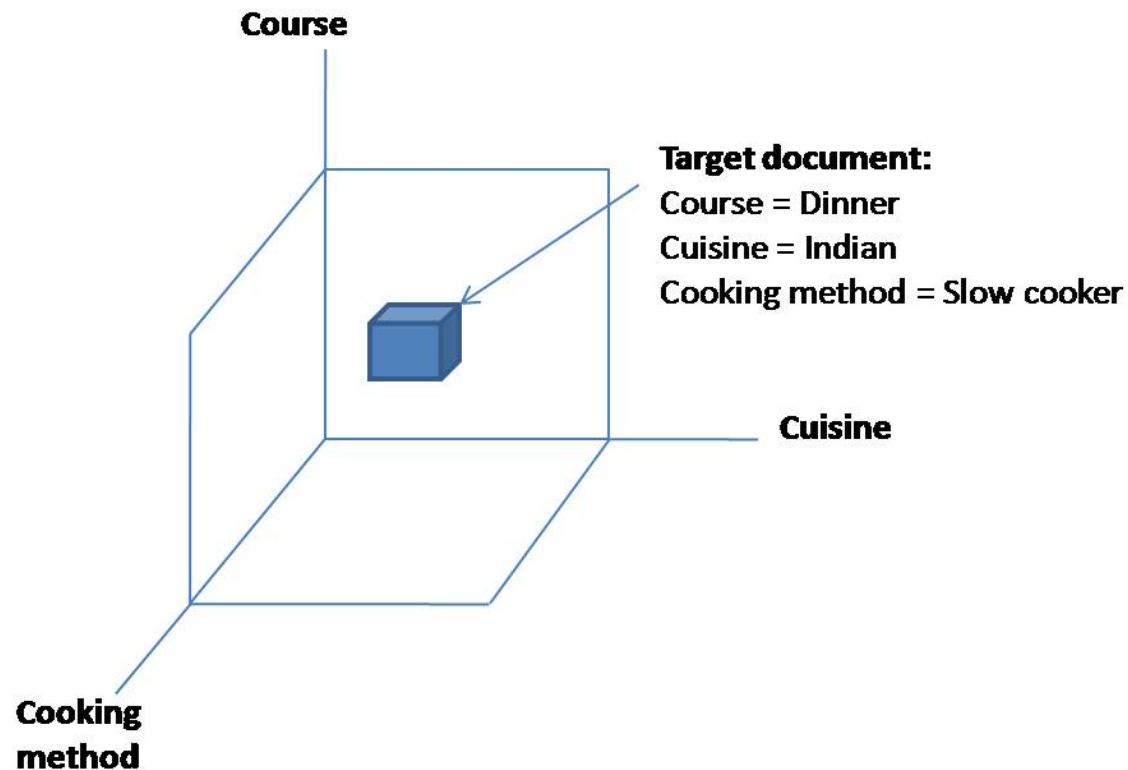
“Think of a cookbook: authors have to organize the recipes in one way only by course or by main ingredient and users have to work with whatever choice of organizing principle that has been made, regardless of how that fits their particular style of searching. An online recipe site using faceted search can allow users to decide how they’d like to navigate to a specific recipe [by course type, cuisine or cooking method, for example].”

Designing for Faceted Search.

https://articles.uie.com/faceted_search/

Filters

Filters (also referred to as **faceted navigation** or **guided navigation**) let users refine a large set of search results. This helps users home in on what they're looking for. Filters are only useful if searching returns a vast amount of results.



DOs and DONTs in Faceted Search

- Don't provide too many facets.
- Base the facets on key use cases & known user access patterns.
- Order the facets and values based on importance.
- Leverage the tool to show & hide facets and values.
- Build your product taxonomy with faceted search in mind

The most important thing however, is to be prepared to break any of these rules in the name of usability. Essentially, building a faceted taxonomy is more of an art than a science and it involves understanding your users' search behaviors.

Interactive vs Batch Filters

- **Interactive filters** - update as soon as the user clicks a filter. The advantage is that users will see the results update as they go.
- **Batch filtering** - multiple filters at once. Advantage of this approach is that it's faster, as users just make one request for several filters. One disadvantage of this approach is that a combination of filters could lead to zero results.

Choose Right Element for Filter type

Color

Green

Red

White

Yellow

Links styled as checkboxes

1

2

3

“This is a checkbox. I
can choose several”

Clicks “Red”

“Damn, I wanted to
choose White too”

Layout

Wallets

Filter

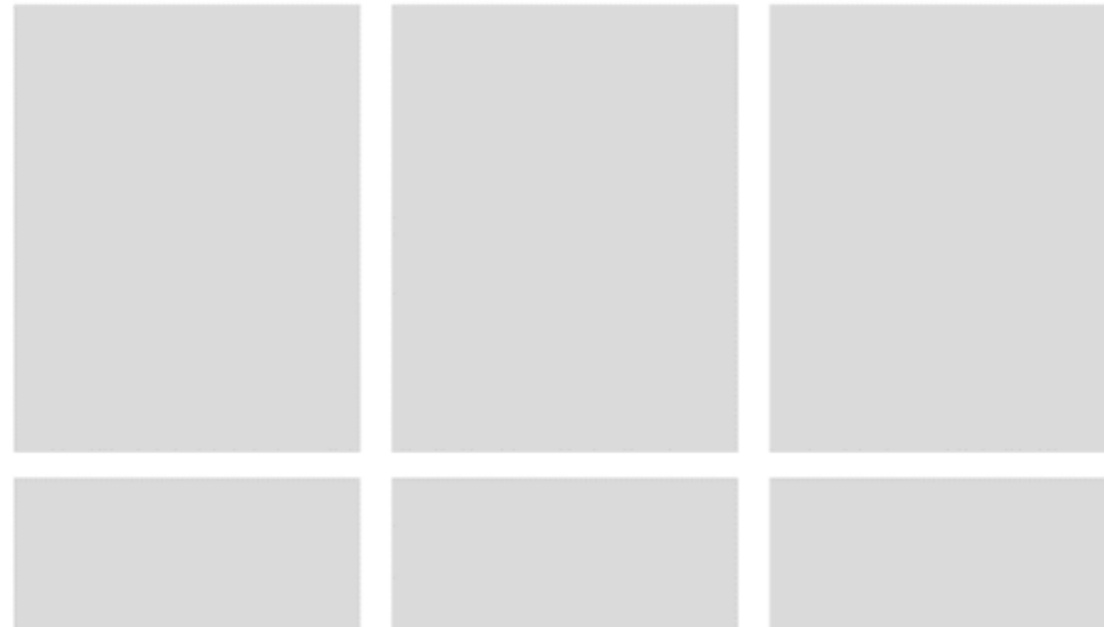
Color

- Green
- Red
- White
- Yellow

Rating

- 5 stars and up
- 4 stars and up

Products



Submitting Filter Form

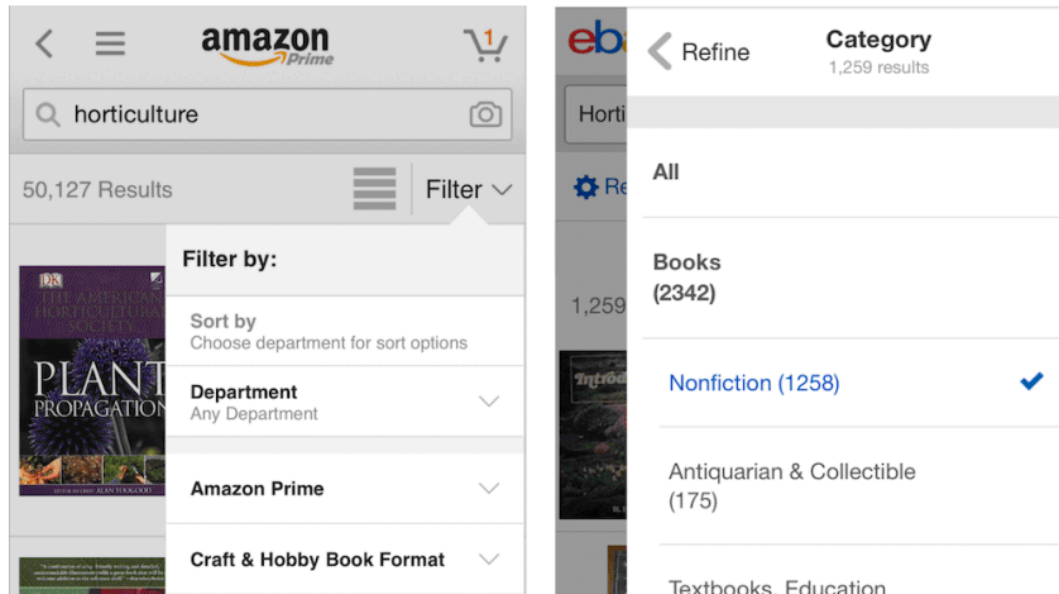
- People have come to expect that clicking a checkbox (or radio button) will reload the results without having to submit.
- This may work for radio buttons and checkboxes, but what if there were text boxes that could be used to enter a price range? This leaves submitting the form on tabbing or clicking out of the field) which is odd and unintuitive.
- Filtering button must:
 - look like a button
 - be styled prominently to stand out
 - should be within easy reach

Collapsible filters

1. The submit button is more likely to draw users' attention as it will be in view.
2. Ajax-injected results will likely be in view.
3. Users shouldn't have to scroll nearly as much, while still being able to scan the filter categories.
4. Keyboard users won't have to tab through all the filters to get to the one they want. This is because hidden content isn't focusable.

Issues on Small Screens

Two components - the filter and the results- are closely weighted in terms of importance.



Pattern: Mobile Faceted Search with a Tray (<https://www.nngroup.com/articles/mobile-faceted-search/>)

Filter Form Checklist

Avoid:

- Making links look like radio buttons and checkboxes.
- Automatically submitting forms without exhausting other simpler techniques.
- Assuming Ajax always delivers a faster and better user experience.
- Prioritizing best practice above user needs.

Links

- The UX of Search: How to Create Accessible Search Forms. <https://icons8.com/articles/ux-design-search-forms/>
- The Mystery of Filtering by Sorting. <https://www.uxmatters.com/mt/archives/2009/07/the-mystery-of-filtering-by-sorting.php>
- UX Design Patterns #6: Search, Sort and Filter Sorted. <https://medium.com/@reddexperience/ux-design-patterns-6-search-sort-and-filter-sorted-913a3ce1e160>
- Best practices for using filters and sort. <https://www.simpleusability.com/inspiration/2017/11/best-practices-using-filters-sort/>

Links

- Find a Needle in the Hay: Best Practices for Filtering UI Design. <https://medium.com/swlh/find-a-needle-in-the-hay-best-practices-for-filtering-ui-design-fd51f556160f>
- The Anatomy of a Perfect Search Box: UX Patterns That Convert in 2025. <https://medium.com/design-bootcamp/the-anatomy-of-a-perfect-search-box-ux-patterns-that-convert-in-2025-6d78cacada52>
- Designing Filters That Work: Best Practices and Guidelines. <https://www.smashingmagazine.com/2021/07/frustrating-design-patterns-broken-frozen-filters/>
- Search UX Best Practices. <https://www.pencilandpaper.io/articles/search-ux>

Thank you!