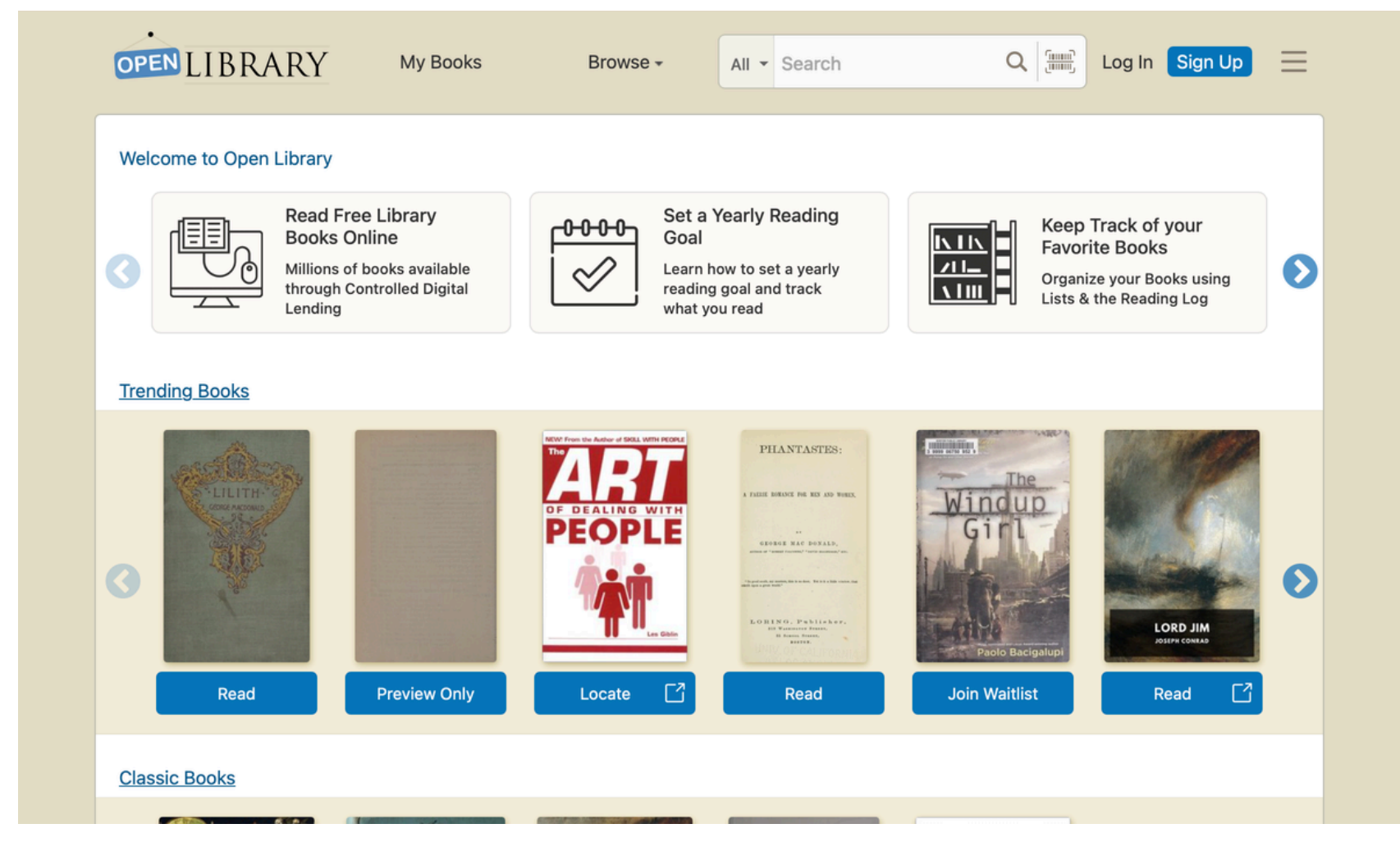


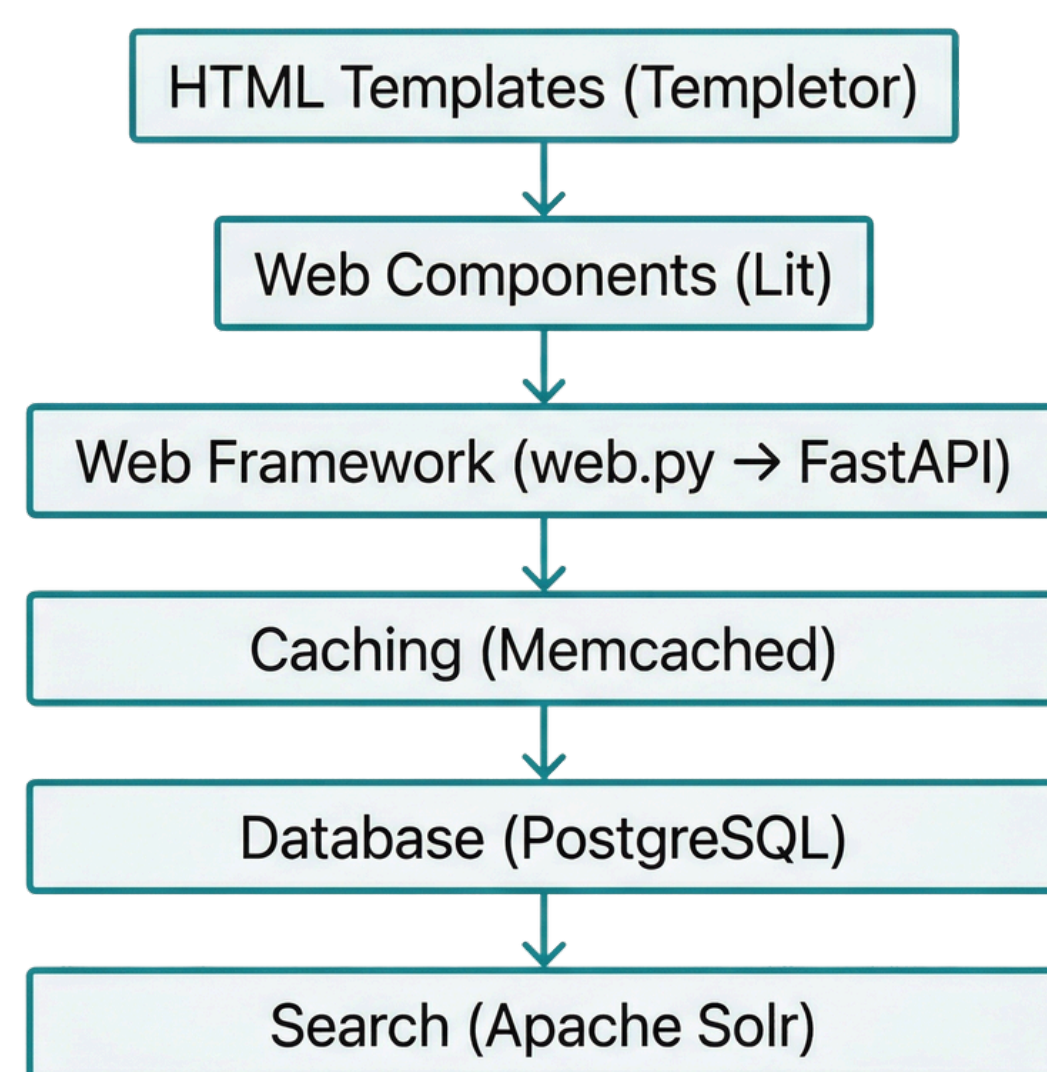
## Introduction

**Open Library** is an open-source project developed by the Internet Archive with the mission of creating "one web page for every book ever published." As a crowdsourced platform, Open Library allows users around the world to contribute, edit, and improve book records, making knowledge more accessible to everyone.

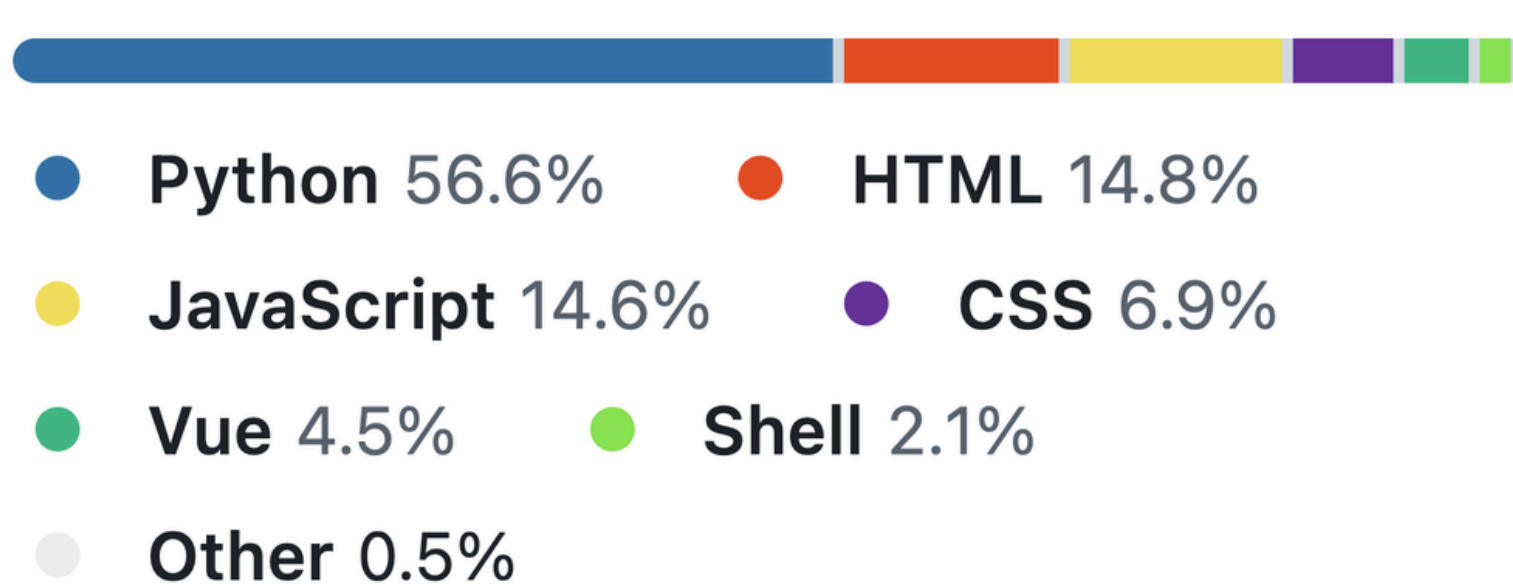
**Our contributions** focused on improving usability and functionality within the platform, helping enhance the experience for millions of users who rely on Open Library as a global resource for discovering and accessing books.



## Architecture & Tech Stack



### Languages

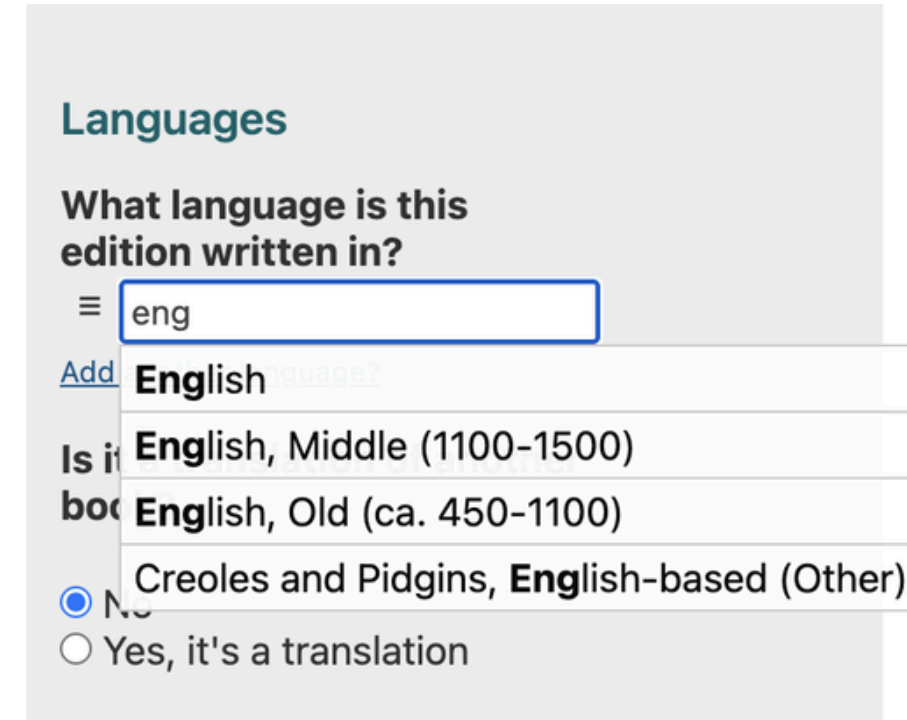


## Issue #10765: Language drop down out of order

**Problem:** Closed

- The language suggestion when adding a new language is not in alphabetic order.

**Outcome:**



**Solution:**

- Normalize user's input by convert all strings to lowercase and trim whitespace.
- Priority-based ranking:
  - Exact matches first.
  - Prefix matches next.
  - Alphabetical ordering.
- Handling special cases (e.g., "English, Old"). These languages are ranked after simpler base names.
- Final fallback uses full string comparison to ensure stable ordering.

**Code:**

```

.then(results => {
  const sortedResults = (results || []).slice().sort((a, b) => {
    const A = (a?.name || '').toString();
    const B = (b?.name || '').toString();

    const baseA = A.split(',')[0].trim();
    const baseB = B.split(',')[0].trim();

    // Normalize for matching
    const t = (term || '').toString().trim().toLowerCase();
    const nBaseA = baseA.toLowerCase();
    const nBaseB = baseB.toLowerCase();

    if (t) {
      const aExact = nBaseA === t;
      const bExact = nBaseB === t;
      if (aExact !== bExact) return aExact ? -1 : 1;

      const aPrefix = nBaseA.startsWith(t);
      const bPrefix = nBaseB.startsWith(t);
      if (aPrefix !== bPrefix) return aPrefix ? -1 : 1;
    }

    const baseCmp = baseA.localeCompare(baseB, undefined, { sensitivity: 'base' });
    if (baseCmp !== 0) return baseCmp;

    const aHasComma = A.includes(',');
    const bHasComma = B.includes(',');
    if (aHasComma !== bHasComma) return aHasComma ? 1 : -1;

    return A.localeCompare(B, undefined, { sensitivity: 'base' });
  });
});
  
```

## Issue #9290: Single Character search & author registration allowed

**Requirements:** Closed

- Disallow author creation and edits with single character.
- Disallow author search with single character.

**Solution:**

- Frontend:**
  - Dynamically added HTML attributes to author search inputs.
  - Added JavaScript to dynamically catch pattern mismatches and display a custom validity message.
- Backend:**
  - Intercepts 1-character searches before they hit the Solr database.
  - Returns an empty JSON object with numFound: 0 for invalid queries.

**Single Character Search Frontend:**

```

function isRestrictedCategory() {
  return activeCategory === 'author' || activeCategory === 'authors';
}

function updateValidation() {
  if (isRestrictedCategory()) {
    input.setAttribute('minlength', '2');
    input.setAttribute('pattern', '.*\\S.*');
  } else {
    input.removeAttribute('minlength');
    input.removeAttribute('pattern');
    input.setCustomValidity('');
  }
}
  
```

**Author Registration Backend:**

```

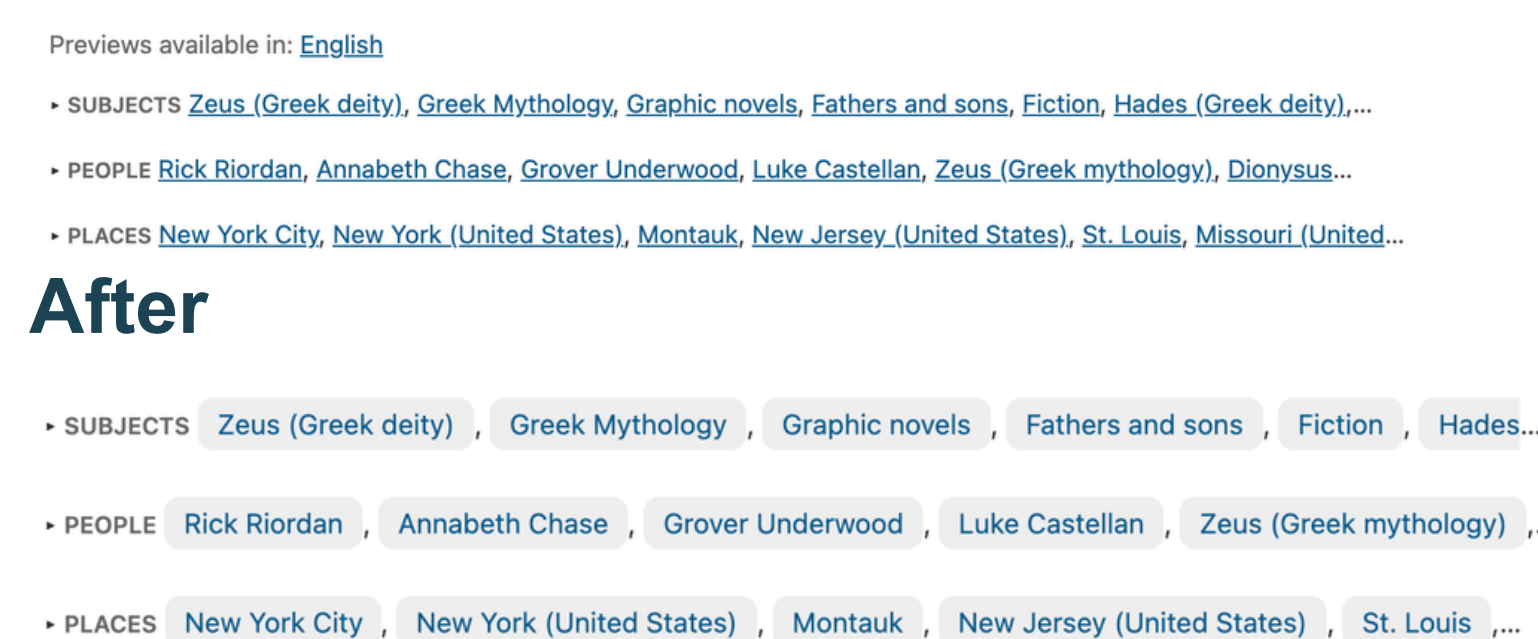
if (author_key === '_new_') {
  if (len(author_name) < 2) {
    raise ValidationException(
      "Author name must be at least 2 characters long"
    );
  }
}
  
```

## Issue #11728 and #12158: Standardize Subject Tags UX

**#11728: Utilize BEM CSS** Closed

- Proposed BEM CSS tags (.ol-tag) to standardize and improve the UI/UX.
- Changed to <ol-chip> component for better scalability -> PR closed but aligned with the new direction.

**Before**



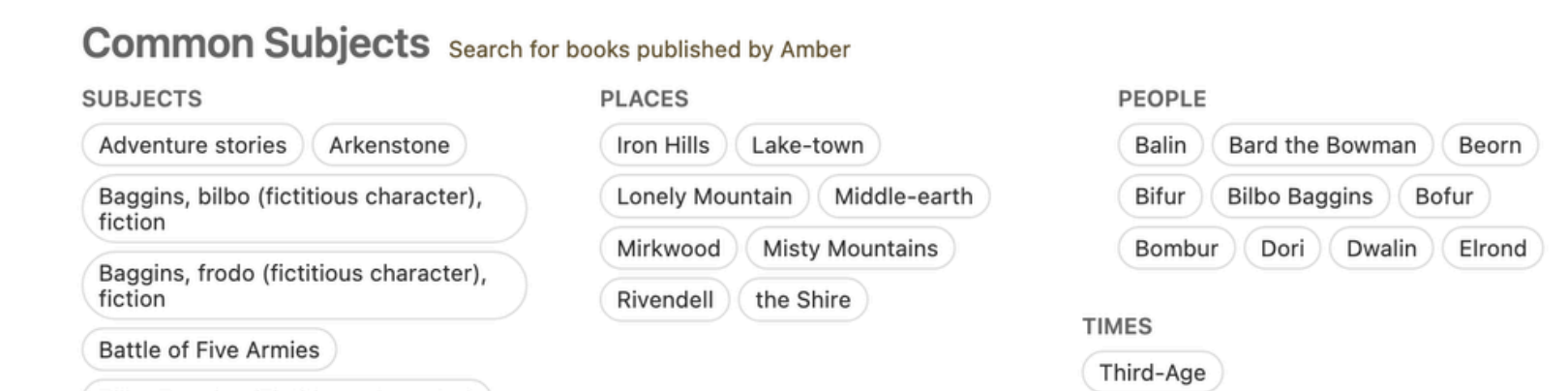
**#12158: Adopt ol-chip component** Merged

- Migrated the new proposed <ol-chip> component across the website to enhance visual consistency, better accessibility, and a more polished tag UI across the site.

**Solution** (e.g The Publisher page - common subjects)

```

<ol-chip-group gap="small">
  $for s in subjects:
    <ol-chip size="small" href="$s.key">$s.name</ol-chip>
</ol-chip-group>
  
```



## Other Contributions

Issue	Description & Solution
#9128 "Filtering books by language on author pages."	Added a multi-select via a dropdown language filter to author pages so readers can narrow an author's works by the language of publication. The filter is backed by the search index (Solr), which supplies the available languages.
#10811 "Work title is displayed only in landscape view, not portrait"	Updated the mobile CSS so work title remains visible in portrait view.

## Reflections

**Achievements:**

- Successfully adapted to automatic Copilot reviews and used feedback to improve contributions.
- Developed patience and persistence while working through unstable development environments.
- Built strong understanding of a large and complex codebase.
- Improved ability to maintain consistency between frontend and backend systems during development.

**Challenges:**

- Delays and stagnation of pull requests in the open-source review process.
- Resolving Git merge conflicts during active development.