



Lab Website Template

AN EASY, AUTOMATIC, FLEXIBLE WEBSITE TEMPLATE FOR LABS

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INTRODUCTION

Research labs need a professional and up-to-date website to showcase their work, attract collaborators, and establish an online presence, but developing and maintaining one can be challenging and time consuming. **Lab Website Template** is an open-source, code-based tool that **automates citation generation, repo configuration, and anything else it can**, letting labs focus more on research and less on web development and grunt work.

APPROACH

Before v1.0, we gathered many observations and direct feedback that shaped our approach.

Some things we noticed:

- The most **common pain points were about the same things**, like repo setup and configuring key options.
- Labs can't waste time** on basics or low-level details, but still need ways to customize things.
- Labs want to see that a tool is **actively maintained**, strongly sold by good support.

Some philosophies we adopted to address these needs:

- Doing > instructing.** Aggressively experimenting with GitHub Actions and scripting, we found we could automate much more setup/config/etc. than we thought.
- Don't let issues languish.** We respond quickly and discuss suggestions to make people feel heard, even if actual resolution takes longer.
- Keep it simple and focused.** We earnestly consider all feedback, but also don't accept every suggestion at face value to avoid feature/config bloat (*inner-platform effect*).
- Code/comments aren't enough.** We have a **full GitBook docs** site with examples, FAQs, diagrams, search, etc. Labs can help themselves for common things, which saves us time for more novel work.
- Cleanly structure content.** We separate *template* content from *user* content so labs can focus on just what's important to them, but still look "under the hood" when needed.

TECHNOLOGIES

- Jekyll** Static site generator. Long-lived. Plugin-rich.
- GitHub** **Pages** for hosting. **Actions** for automation.
- Markdown** For content. Liquid for templating.
- Python** For auto-cite scripts. Familiar for researchers.
- Docker** Runs template locally. Cross-platform. Single install.
- Ruby** For data filtering. Jekyll plugins, other misc.

TEMPLATE

POSTER



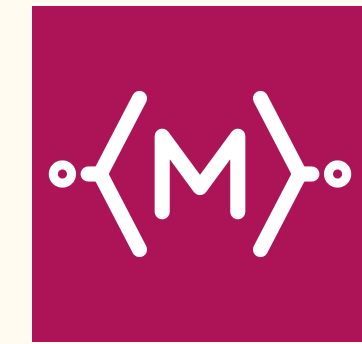
AUTO-CITATIONS

Who wants to **manually manage** citations?

```
orcid.yaml
- orcid: 0000-1111-2222-3333
```



```
sources.yaml
- id: doi:12345
  image: thumbnail.jpg
  tags: biology, data
```



```
research.md
{%
  include list.html
  data="citations"
  filter="category == 'featured'"
  %}
```

Simple input → → **Rich** output

Input your "**meta-sources**" as **simple IDs**.

We **auto-expand** these into full lists of sources from **ORCID**, Google Scholar, or PubMed (extensible via plugins).

Input your hand-picked **sources** as **simple IDs** (2k+ supported types), and extra rich details.

We **auto-generate full citations** – title, authors, date, publisher, etc. – with **Manubot**.

Include citations in your site however you want with the **list component**. Filter with **unwieldy Liquid** or any **Ruby expression**.

MORE AUTOMATION

Several other automations handle the most **confusing** and **error-prone** tasks for you, triggered by **events**, with little or **no manual steps**.

✓ on push ✓ update-citations 2m 43s ✓ build-site 2m 40s ✓ deploy <https://greenelab.com/> 30s

- Click some buttons**, wait a few, and your site is **live and ready** to edit.

First time setup

Init branches
Clean up/rename files
Personalize with @username /URL/etc.

- Edit your content, wait a few, and your **changes are live**.

On push to main

Run cite process
Build site
Host at main URL

- Suggest changes and **preview** them **before publishing**. No Netlify needed.

On pull request

Build site preview
Host at /pr-# sub-URL
Post PR comment w/ link

On schedule (weekly by default)

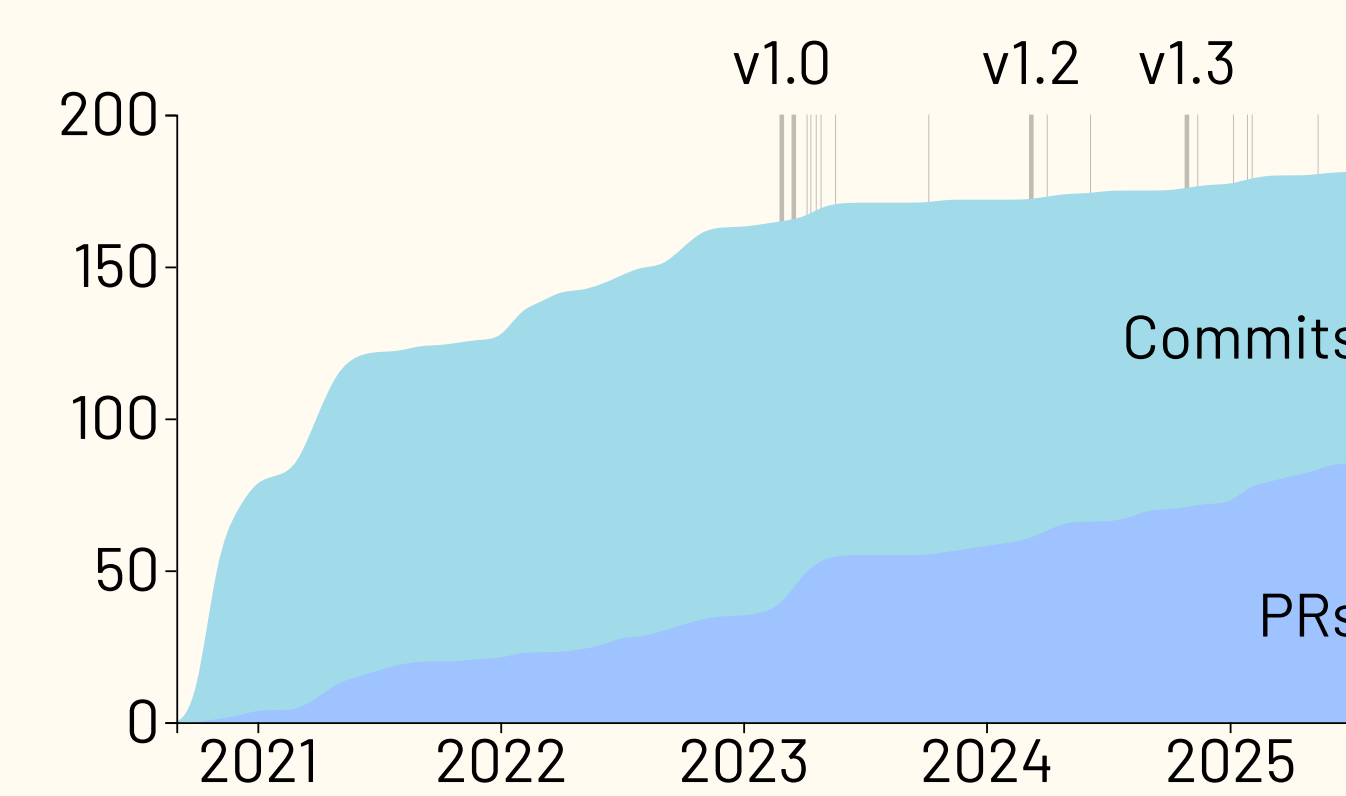
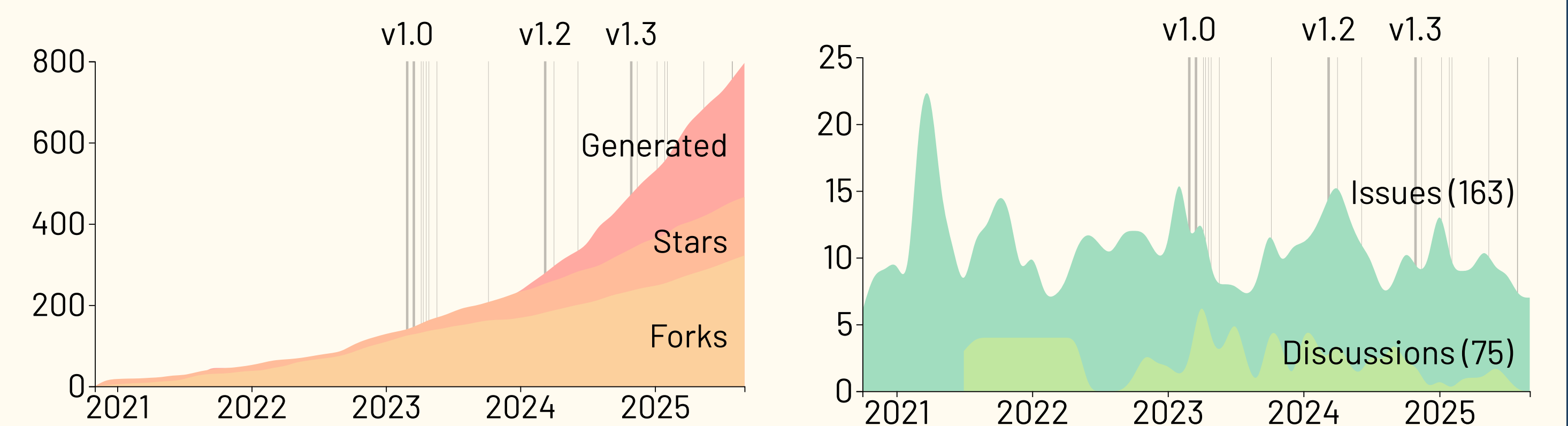
Run cite process
ORCID/etc. may have updates
Open PR if any changes

OTHER FEATURES

- Suite of pre-made **building blocks...**
- Team member bios**, roles, socials, etc.
- Dark mode**. Desktop and mobile design.
- Figures, tables, math, banners, and more.
- Blog** posts with tags and rich content.
- Custom URL** with any domain provider.

OUTCOME

We believe **our approach and design lead to a valuable piece of software**, evidenced by the template's growing adoption on GitHub, positive feedback, and **gallery** of active labs using it. This work has likely saved researchers and **others** significant time and money, reflecting a community resource that effectively serves the needs of its users.



Median...	Response	Resolution
Issue	3.5 hrs	12 days
Discussion	2 hrs	10 hrs

The **next evolution** could focus on even more convenience, simplicity, robustness, and flexibility. We'd like to use a **more modern site generator** with type-safety, make template version upgrades automatic, and make citations even more seamless.

