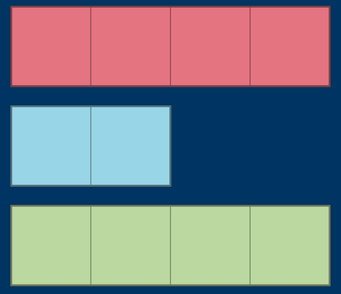
The hpc.social project

communication resources for the high performance computing community and related fields

Alan Sill, Texas Tech University
Vanessa Sochat, Lawrence Livermore National Laboratory
for the hpc.social team

EasyBuild User Meeting
April 24, 2023



EASYBUILD.io
building software with ease

LLNL-PRES-848087

HPC community is global but my project is local

How can I find experts and share my expertise with others?

Social media are often too commercialized - but starting something new seems too hard?

General questions and concerns about HPC as a field and community

Expertise is often narrowly focused within any one group

How can I get to know people and build persistent working relationships?

How can I learn about new things?

What's missing to have a commmunity? 🤔

"I have a funny HPC cartoon I want to share!"

"I want to put together a smaller group interested in hardware or a particular software project"

"I want to see what community members are producing, not just vendors"

"I want to share a job opportunity or event!"

"I want to chat with my HPC friends from across communities more than a few times a year."

"I'd like to interact with my HPC colleagues as people."

What's missing? 🤔

"I have a funny HPC cartoon I want to share!"

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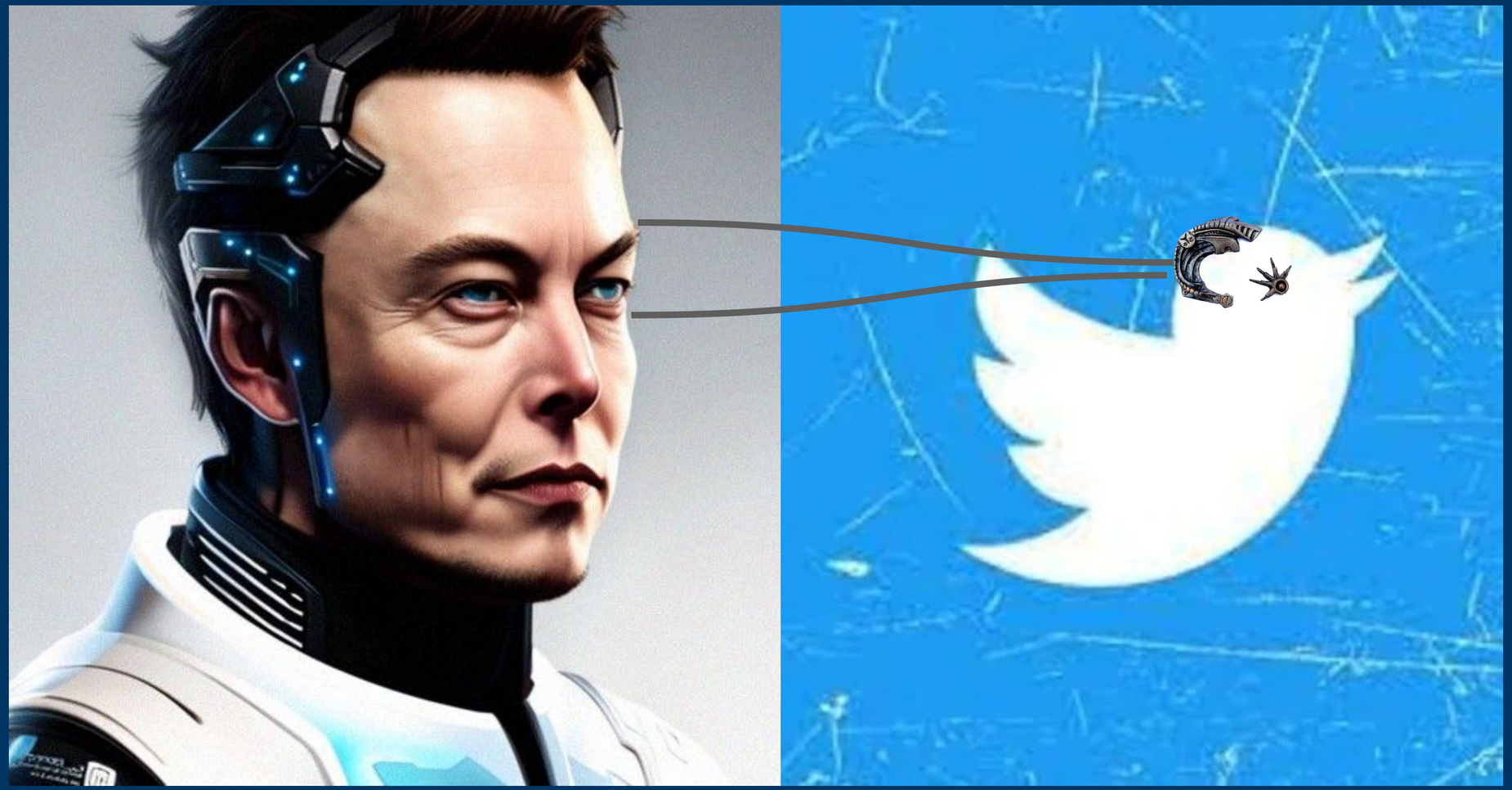
This was all abstract and general until…

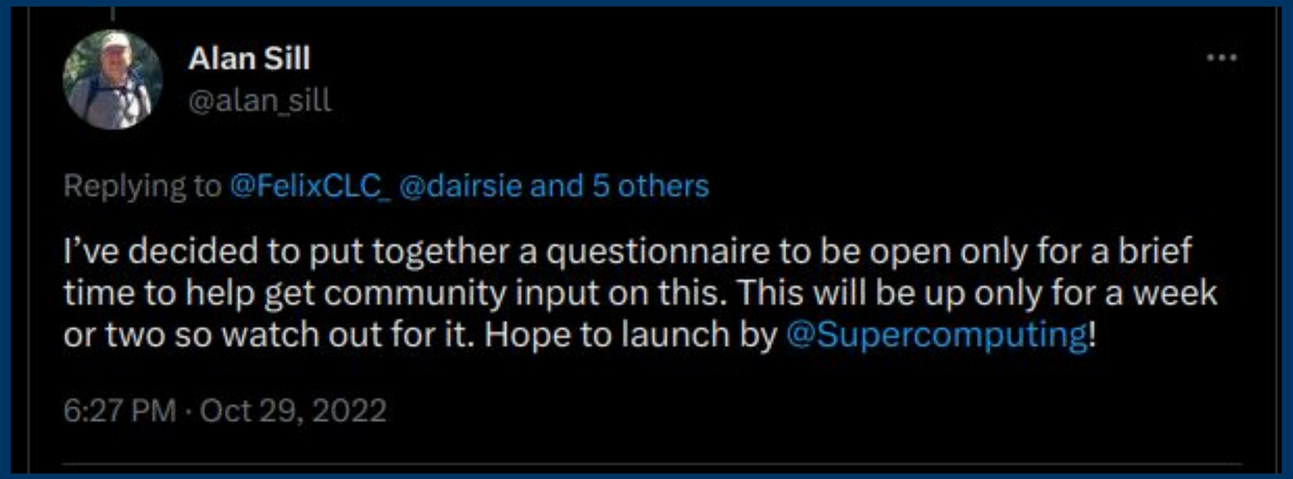


Twitter takeover was a wakeup call.

So: back to the original questions:

How do we create an effective, global, useful, shared, *human* HPC community?

We started with a survey:



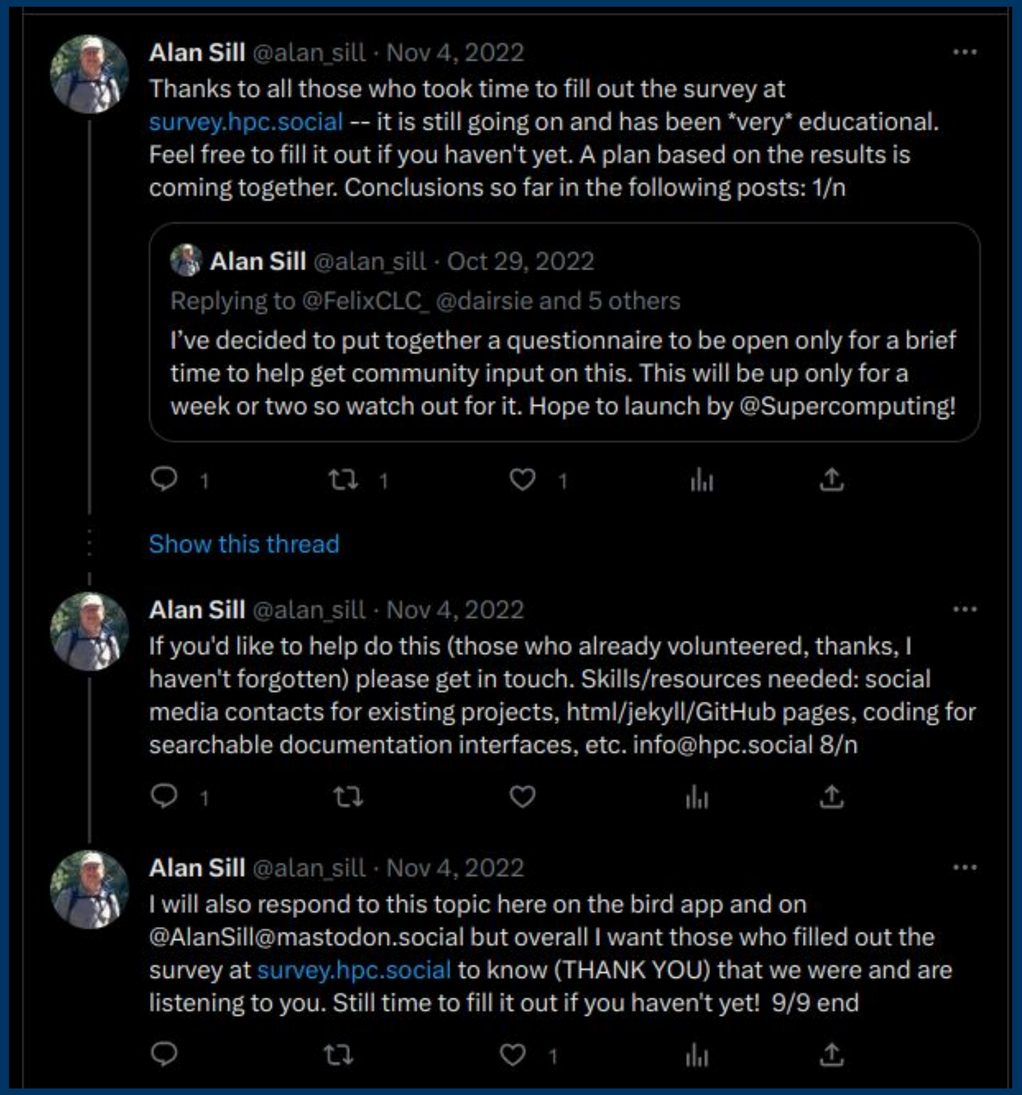
Alan Sill
@alan_sill

Replying to @FelixCLC_ @dairsie and 5 others

I've decided to put together a questionnaire to be open only for a brief time to help get community input on this. This will be up only for a week or two so watch out for it. Hope to launch by @Supercomputing!

6:27 PM · Oct 29, 2022

Which grew…



Alan Sill @alan_sill · Nov 4, 2022

Thanks to all those who took time to fill out the survey at survey.hpc.social -- it is still going on and has been *very* educational. Feel free to fill it out if you haven't yet. A plan based on the results is coming together. Conclusions so far in the following posts: 1/n

> **Alan Sill** @alan_sill · Oct 29, 2022
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1 1 1

Show this thread

Alan Sill @alan_sill · Nov 4, 2022

If you'd like to help do this (those who already volunteered, thanks, I haven't forgotten) please get in touch. Skills/resources needed: social media contacts for existing projects, html/jekyll/GitHub pages, coding for searchable documentation interfaces, etc. info@hpc.social 8/n

1

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1

And from this we learned these things…

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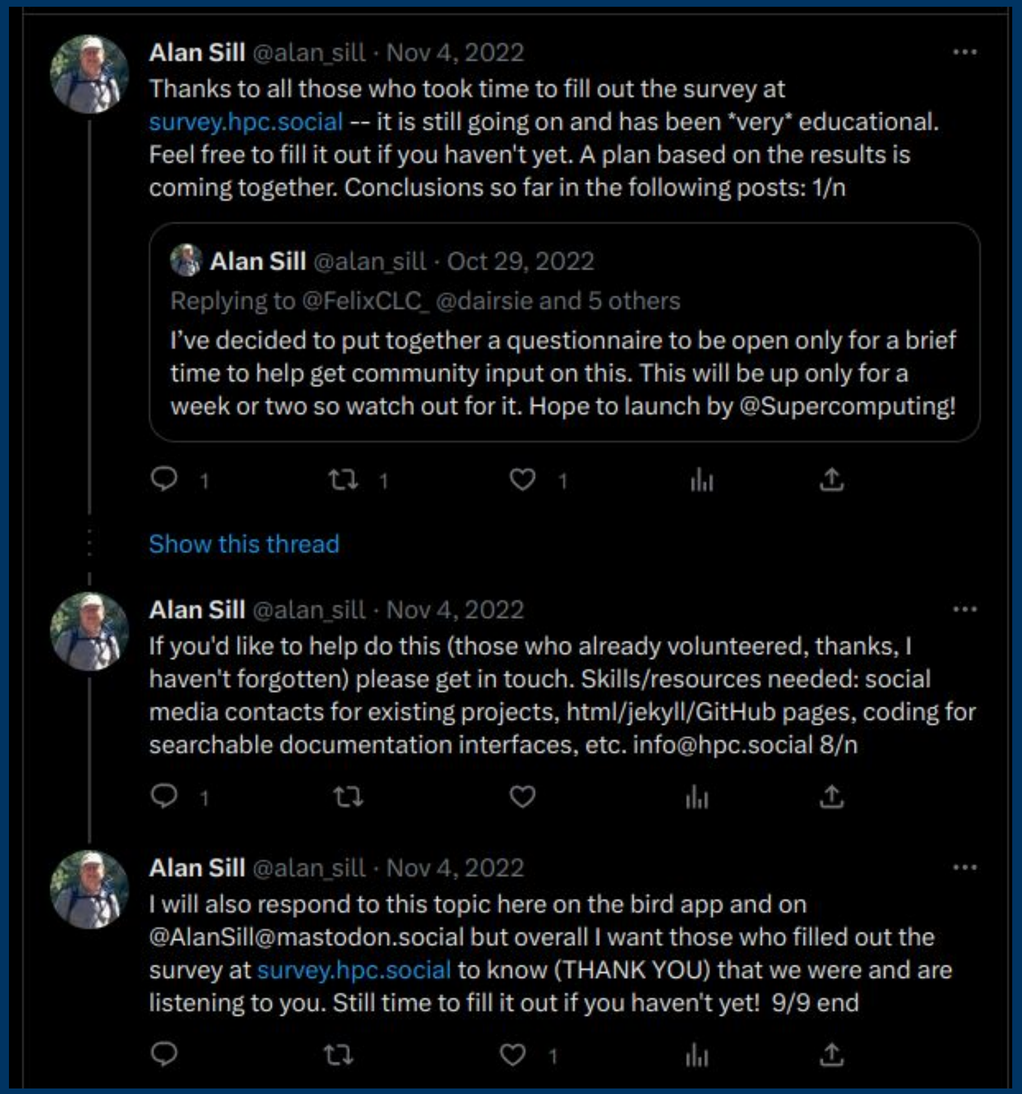

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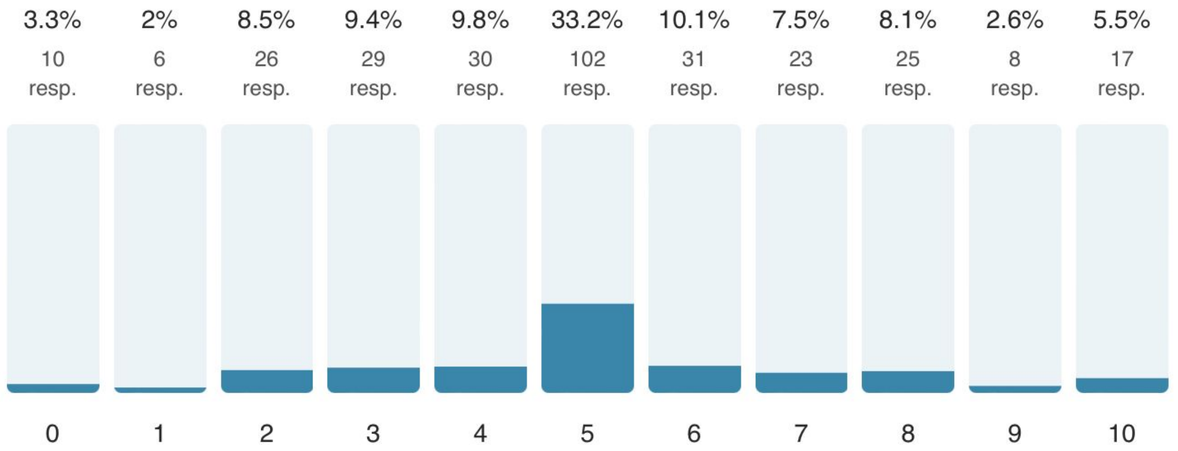
1

And from this we learned these things…

How happy are you with existing social media for personal or technical exchange of information in the HPC and advanced computing space

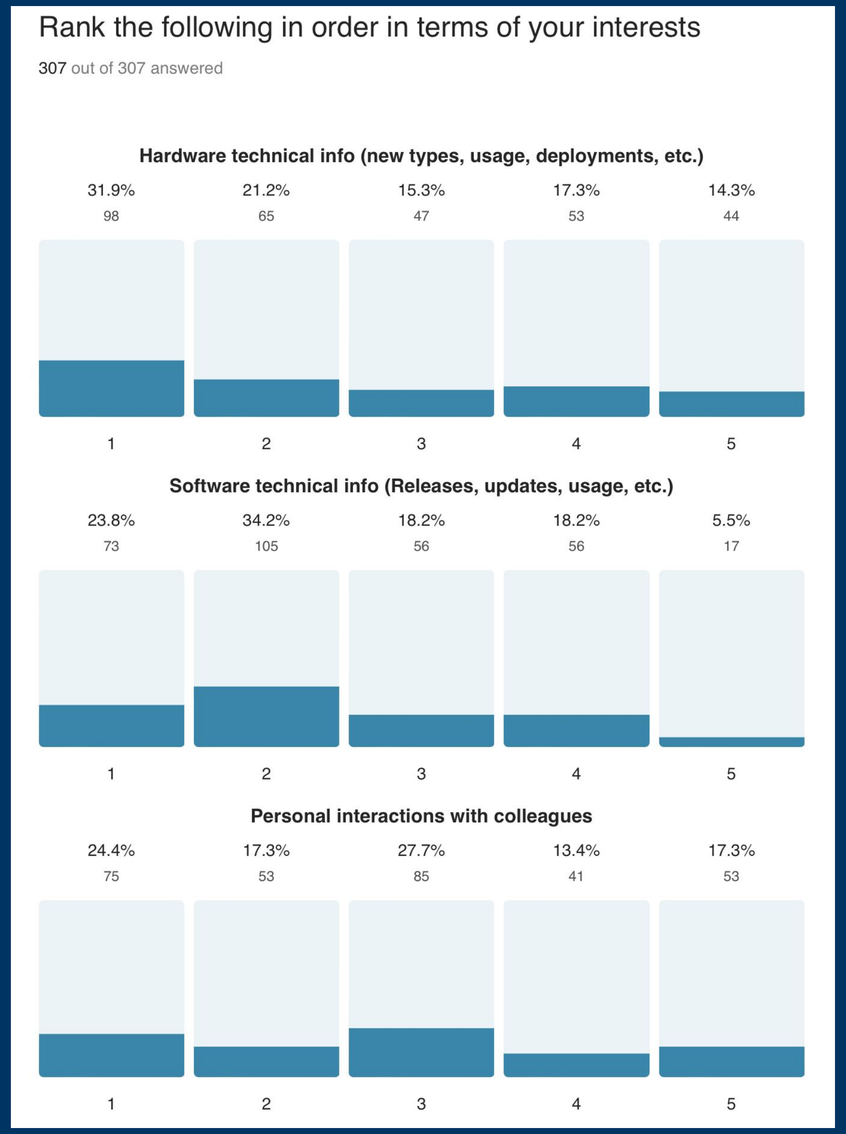
307 out of 307 answered

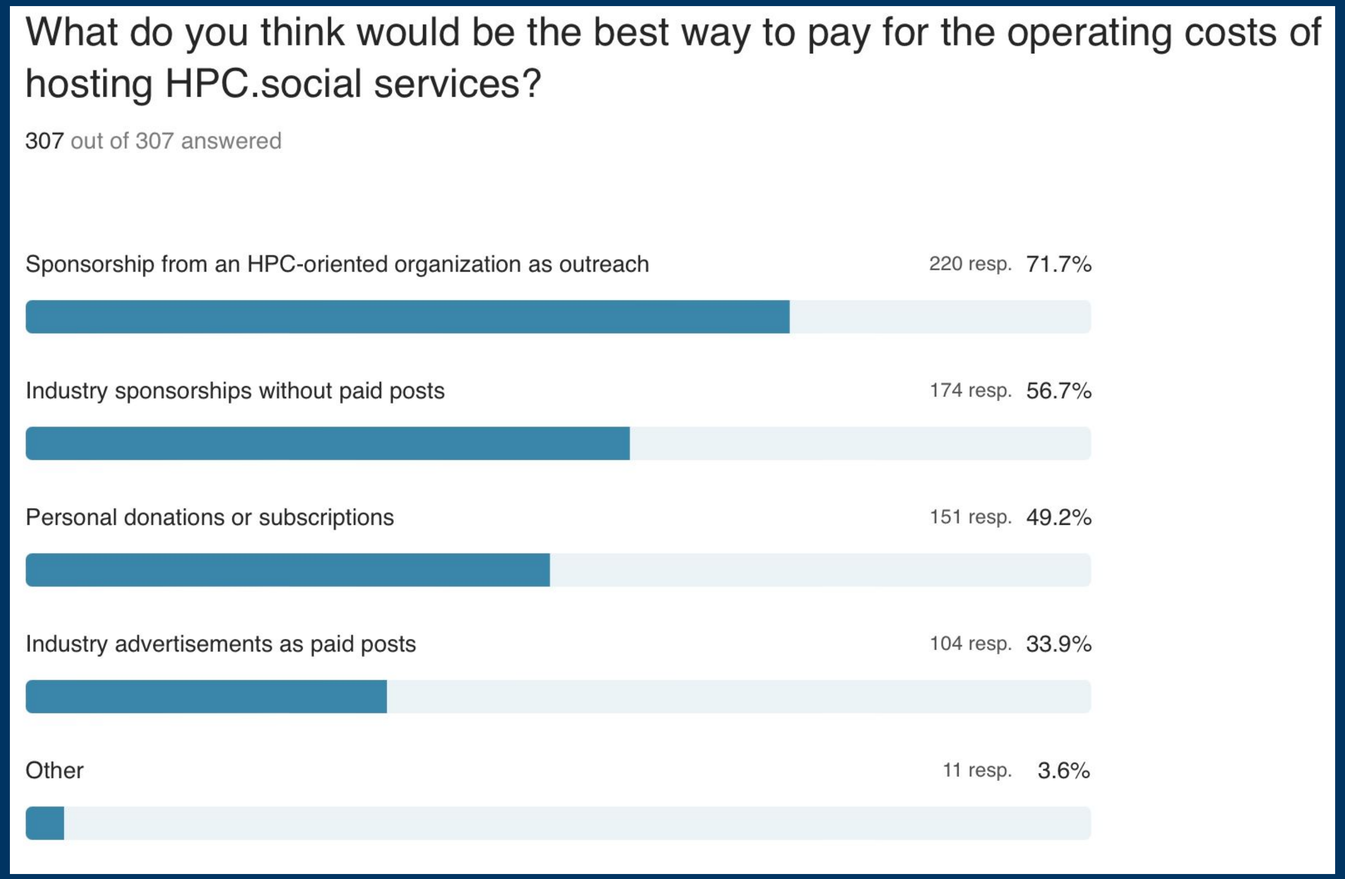
5.1 Average rating



People are not very happy with existing social media for HPC (average 50% rating).

They are interested both in exchanging technical information and in interacting with colleagues, and would like it paid by the community itself:





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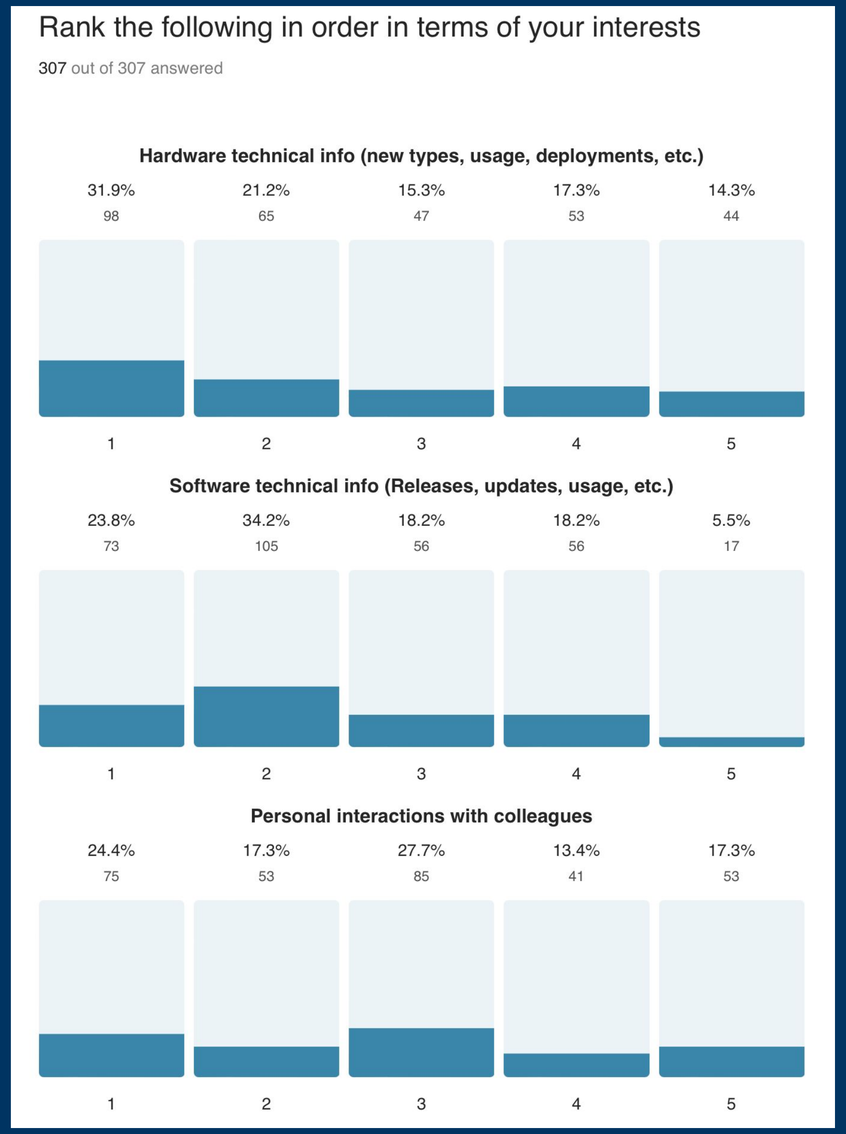

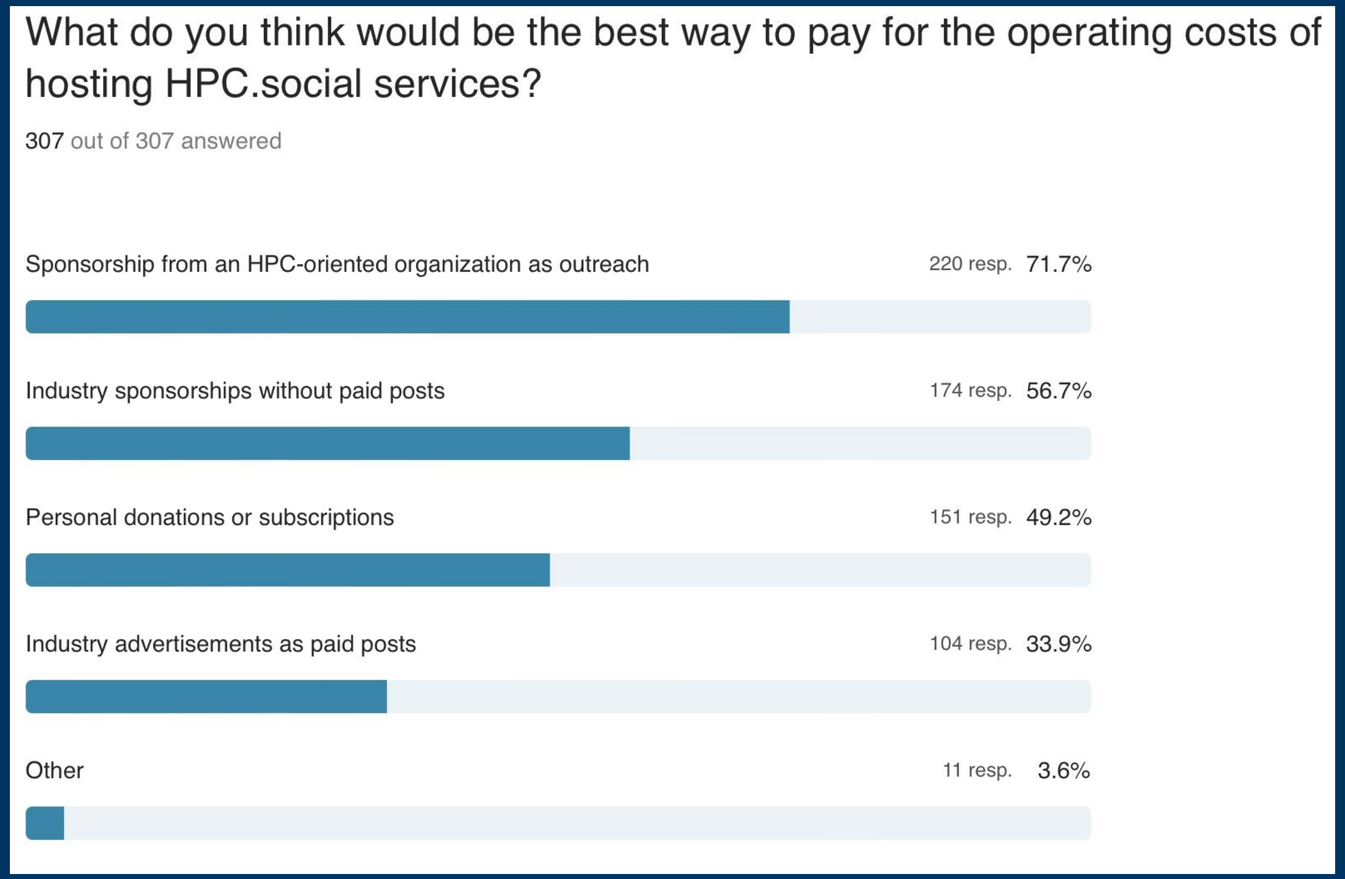

Also Alan knew that Vanessa had a bunch of ideas about how to create community tools!

Hello, I’m the “Vanessa” person!

And it grew into this:

The hpc.social projects

And it grew into this:

HPC.social

Practitioners and friends.

Projects

News

Discussion

Mastodon

Chat

Jobs

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HPC.social

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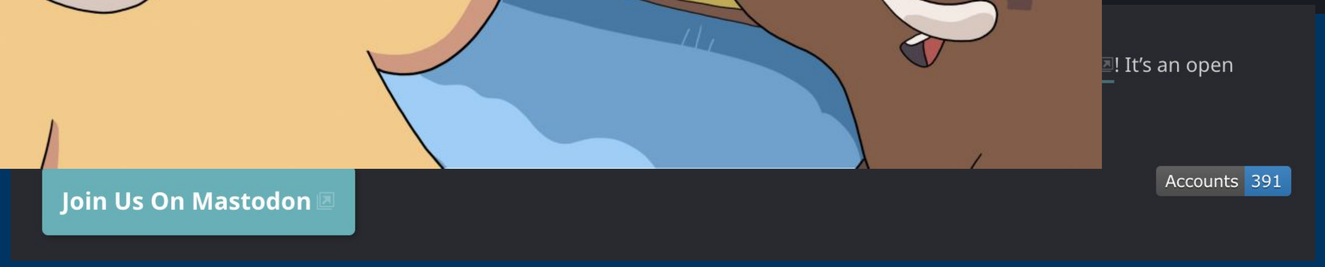
And it grew into this:

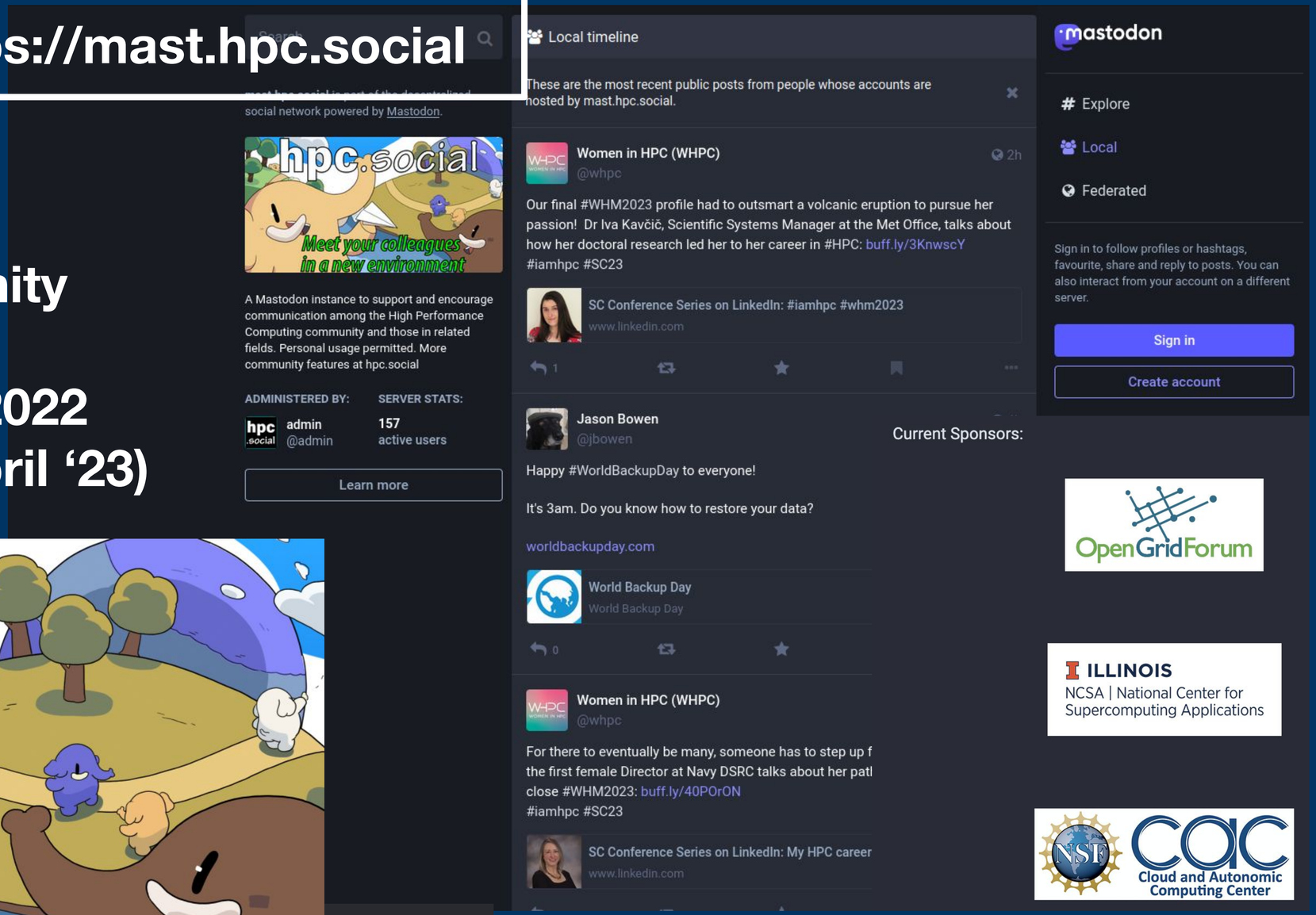
Our first effort:

https://mast.hpc.social

A Mastodon server professionally hosted and supported by the community

Started at SC November 2022
Current accounts: 391 (April ‘23)

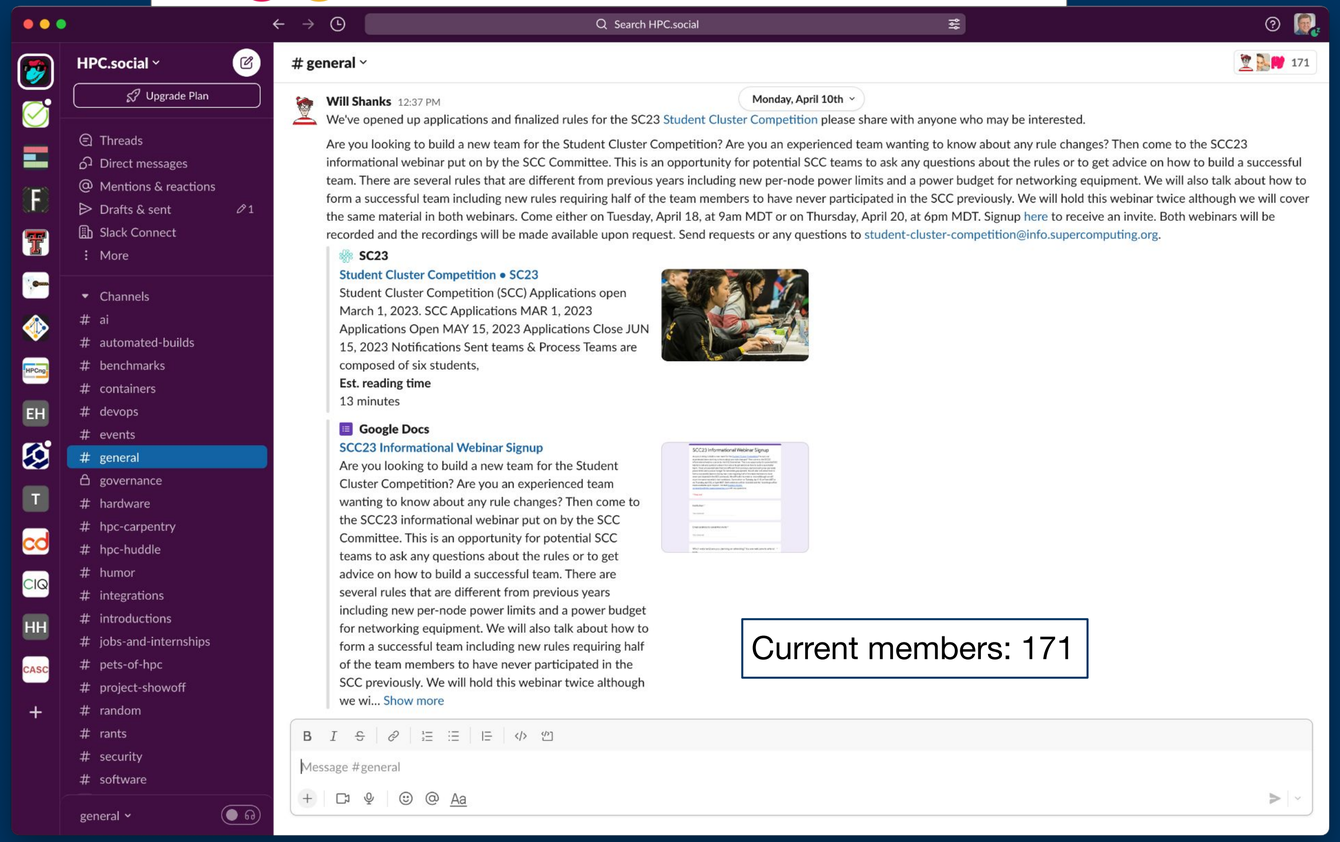




Mastodon

We added Slack and Discord by community request:

slack



Chat

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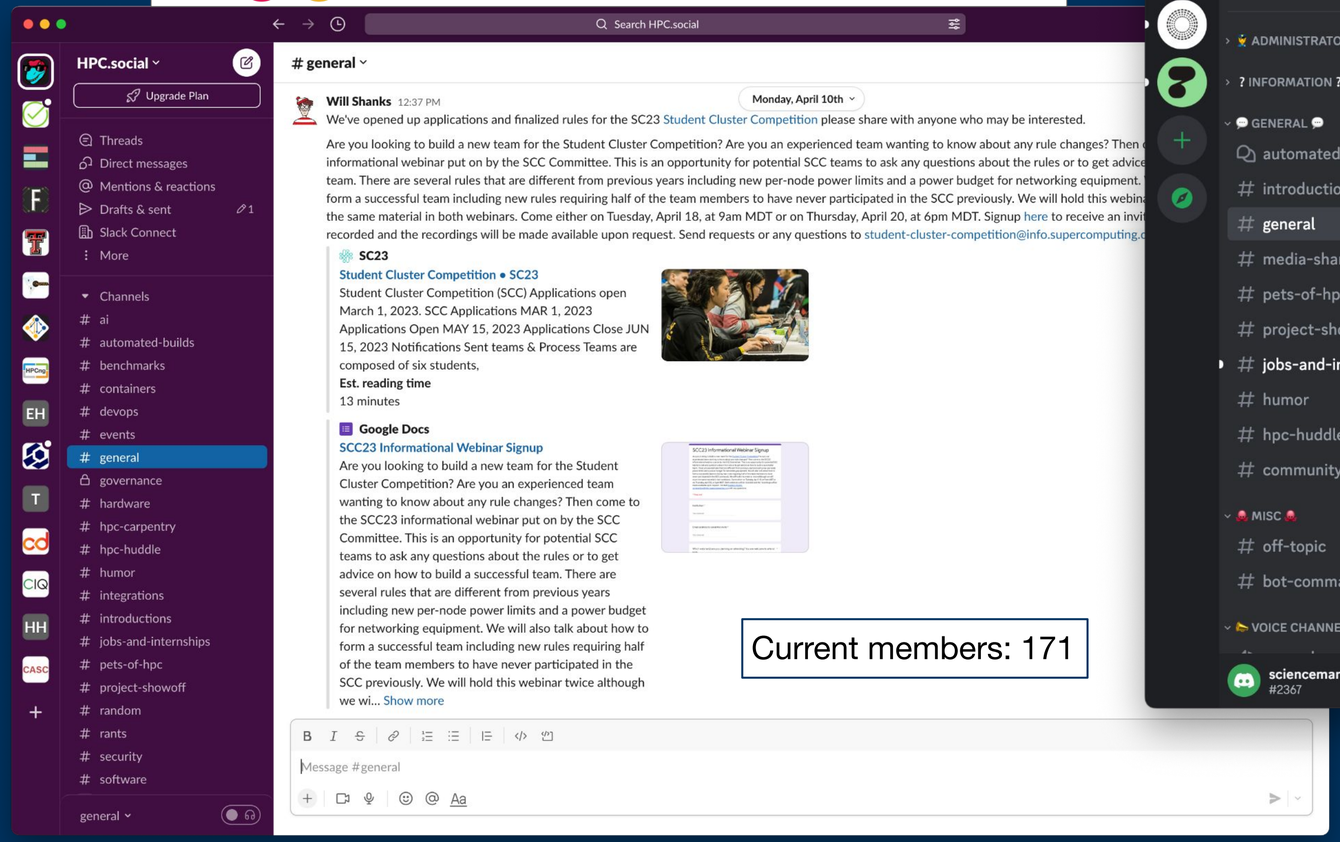
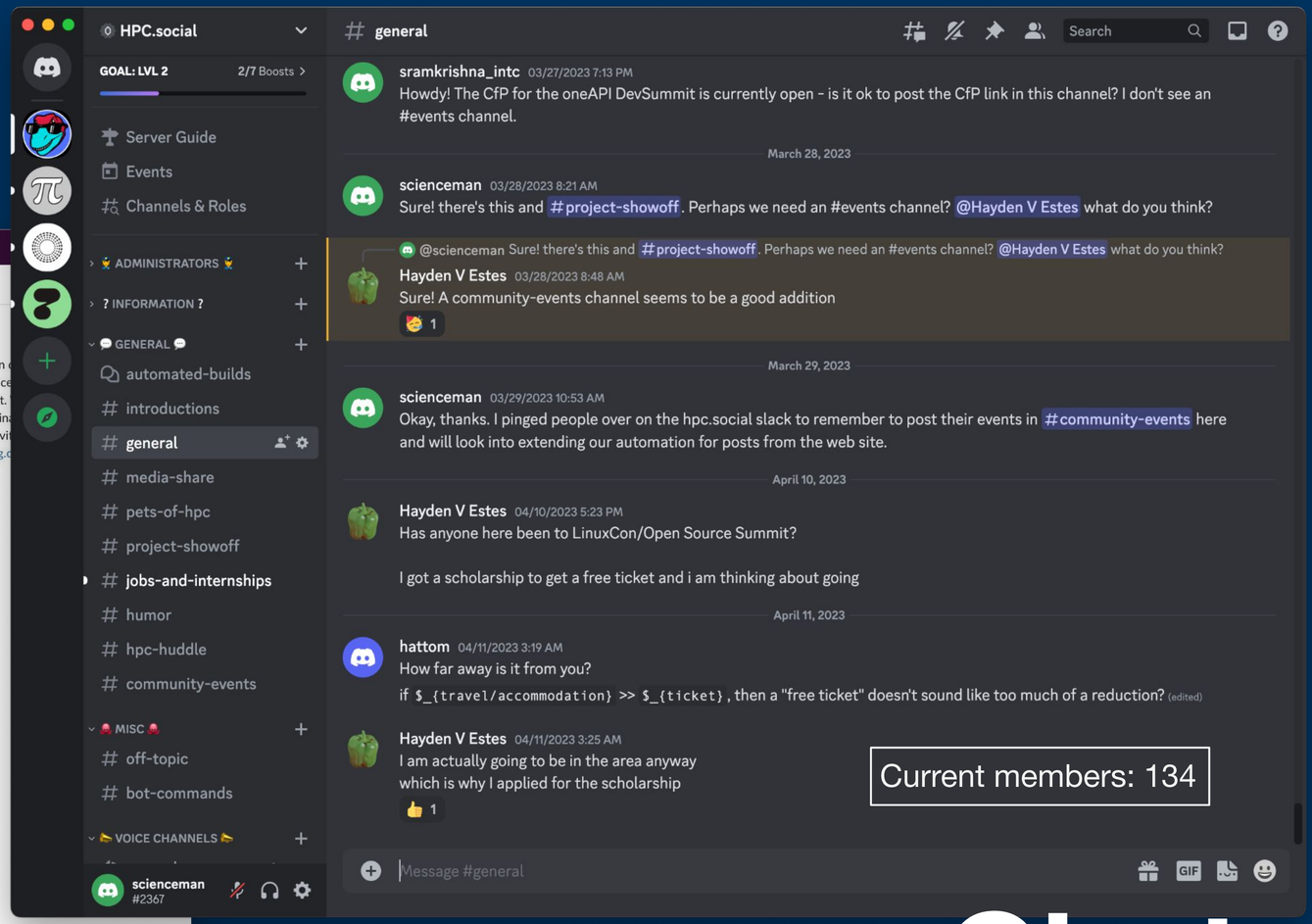
Discord

slack





Chat

hpc
.social
Home
Table
GitHub
And a community map to allow people to tell us where they and their HPC centers are:
Community Map
Community Members
Centers and Groups
mapbox
© Mapbox © OpenStreetMap Improve this map
North Atlantic Ocean
South Atlantic Ocean
Indian Ocean
Arabian Sea
Coral Sea
Canada
United States
Mexico
Cuba
Guatemala
Costa Rica
Colombia
Ecuador
Peru
Bolivia
Paraguay
Chile
Argentina
Uruguay
Brazil
Guyana
Venezuela
Caracas
Fortaleza
Salvador
Belo Horizonte
Rio de Janeiro
Vancouver
Calgary
Quebec
Toronto
Boston
New York
San Francisco
Los Angeles
Houston
Iceland
Norway
Sweden
Estonia
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Denmark
Moscow
Kazan
Yekaterinburg
Omsk
Novosibirsk
Russia
Kazakhstan
Mongolia
Ukraine
Romania
Bulgaria
Georgia
Kyrgyzstan
Turkmenistan
Beijing
North Korea
South Korea
Japan
China
Shanghai
Taiwan
Laos
Vietnam
Philippines
Malaysia
Brunei
Indonesia
Surabaya
Papua New Guinea
Australia
Brisbane
Perth
Adelaide
Sydney
Melbourne
Germany
France
Spain
Italy
Greece
Turkey
Lisbon
Tunisia
Morocco
Algeria
Libya
Egypt
Western Sahara
Mauritania
Mali
Niger
Chad
Sudan
Eritrea
Yemen
Senegal
Guinea
Benin
Ghana
Central African Republic
Republic of the Congo
Uganda
Tanzania
Angola
Malawi
Zimbabwe
Namibia
South Africa
Cape Town
Ethiopia
Victoria
Mauritius
Maldives
Sri Lanka
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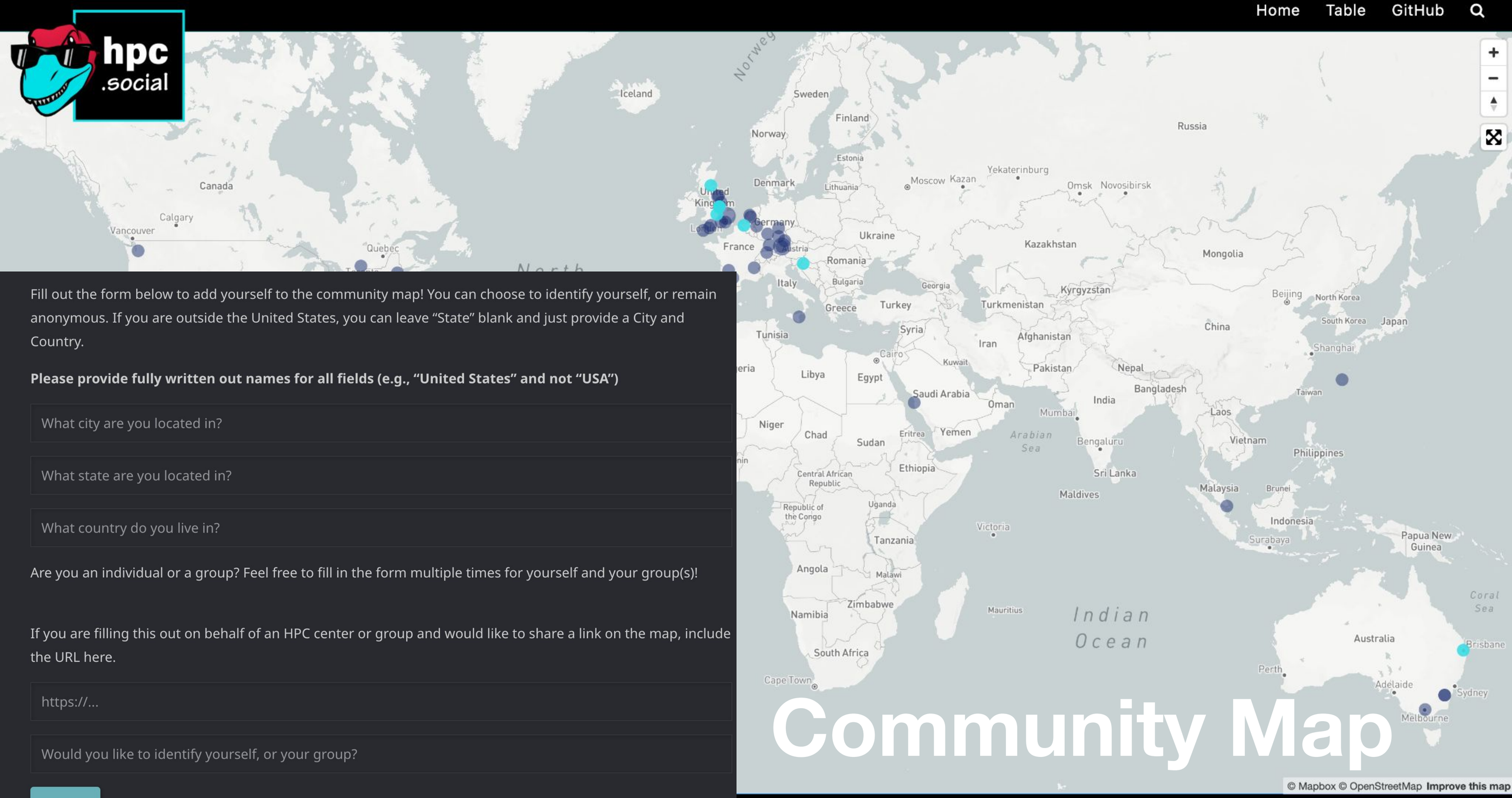
Syria
Kuwait
Saudi Arabia
Oman
Cairo



Fill out the form below to add yourself to the community map! You can choose to identify yourself, or remain anonymous. If you are outside the United States, you can leave “State” blank and just provide a City and Country.

Please provide fully written out names for all fields (e.g., “United States” and not “USA”)

What city are you located in?

What state are you located in?

What country do you live in?

Are you an individual or a group? Feel free to fill in the form multiple times for yourself and your group(s)!

If you are filling this out on behalf of an HPC center or group and would like to share a link on the map, include the URL here.

https://...

Would you like to identify yourself, or your group?

Submit

Podcasts

Let's Talk Exascale

Browse Let's Talk Exascale

> ECP's Let's Talk Exascale podcast goes behind the scenes to chat with some of the people who are bringing a capable and sustainable exascale computing ecosystem to fruition. Discussions revolve around the challenges, successes, and expected impact of the project.

Recent episodes that featured HPC projects included:

- Episode 100: Reflecting on the 'Why' behind Supercomputing Simulations: Advancing Science
- Episode 99: ECP's WarpX Team Successfully Models Promising Laser Plasma Accelerator Technology
- Episode 98: Providing Exascale-Class Multiphysics Simulation Capability to Multiple Science Domains

Contact the Let's Talk Exascale podcast at ECP-communications@ornl.gov

Developer Stories

Browse Developer Stories

> As developers, we get excited to think about challenging problems. When you ask us what we are working on, our eyes light up like children in a candy store. So why is it that so many of our developer and software origin stories are not told? How did we get to where we are today, and what did we learn along the way? This podcast aims to look "Behind the Scenes of Tech's Passion Projects and People." We want to know your developer story, what you have built, and why. We are an inclusive community - whatever kind of institution or country you hail from, if you are passionate about software and technology you are welcome!

Recent episodes that featured HPC community projects and people have included:

- Dr. Cuff: A look behind the scenes of our beloved Dr. Cuff
- Tech Horror Stories: with many happening in a server room!
- 300 Nodes in a Closet: Fernanda's journey into high performance computing.

And browse more episodes at the show site!. Information about the show and how to be featured as a guest is on the about page.

Science in Parallel

Browse Science in Parallel

> Science in Parallel focuses on the people of computational science and their interdisciplinary research to simulate climate change and the cosmos, understand viral infections, build alternative energy strategies and more – all using high-performance computing (HPC). Season 1 celebrated the 30th anniversary of the Department of Energy Computational Science Graduate Fellowship (DOE CSGF) program and was shortlisted for 2022 Best Technology Podcast from the Publisher Podcast Awards. Season 2 will highlight how the COVID-19 pandemic has reshaped computational science workplaces and careers, with in-depth conversations about HPC's future. Science in Parallel Season 2 focused on HPC workforce and workplace changes since 2020. Notable episodes include:

- Future of Work Part 1 and Part 2 examine the impact of remote work on computational science and HPC and featured Elaine Raybourn of Sandia National Laboratories among others.
- Two PhDs + Pandemic + Baby features an interview with two computational science Ph.D. students who talk about how COVID-19 shaped their career paths and perspectives on life and work.
- In You're Moving to Finland? Jeff Hammond of NVIDIA discusses career changes and his big move to Finland in 2021.
- Improving Computing Performance and Workforce Diversity features an interview with Valerie Taylor of Argonne National Laboratory about the Threadwork project and her work to support underrepresented communities in computing.
- Pushing Limits in Computing and Biology features an interview with Anda Trifan (now a computational sciences investigator at GSK) and Amanda Randles of Duke University.

Browse more episodes on the show page or also find your favorite podcast subscription service there!

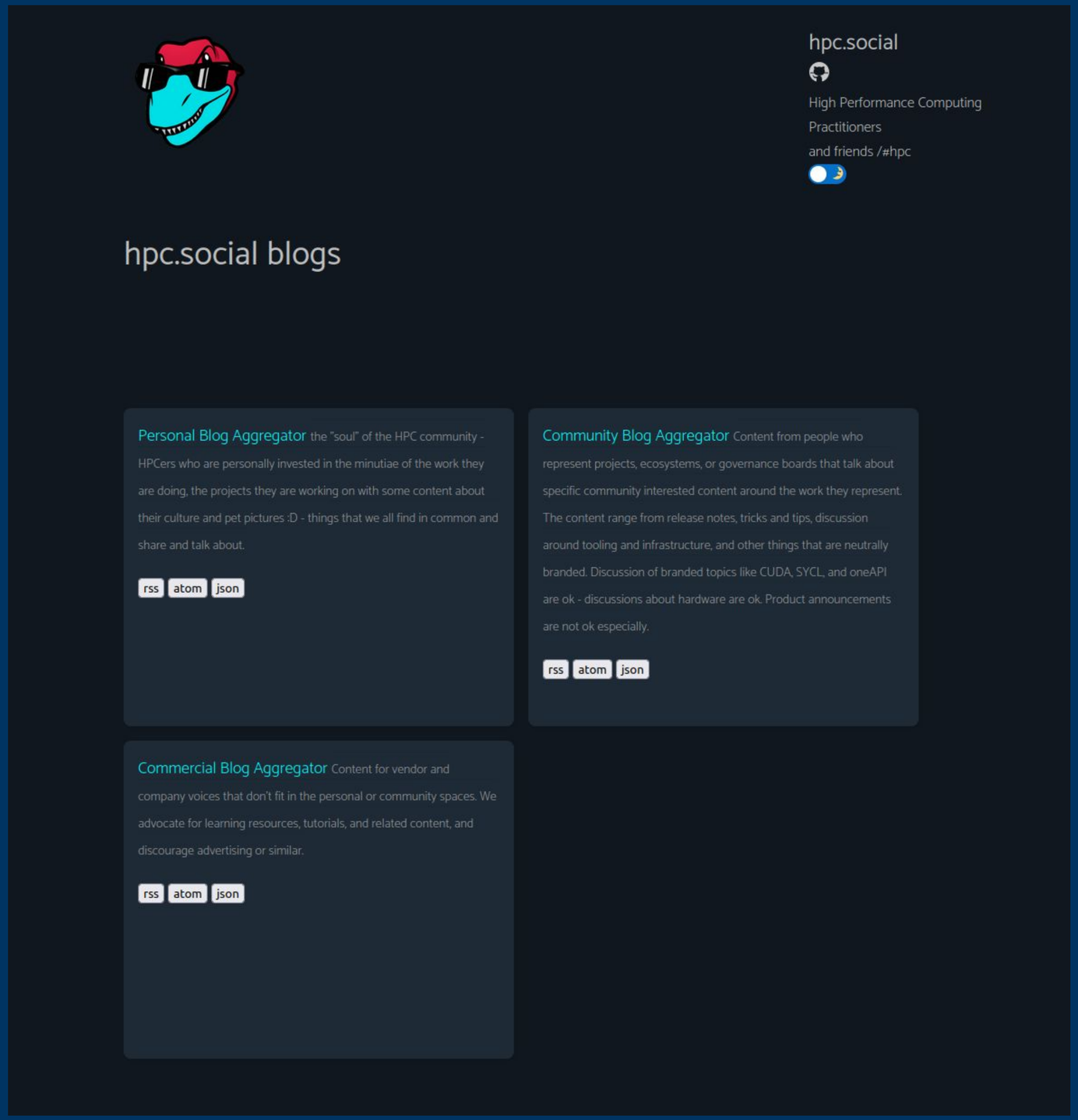
hpc.social

High Performance Computing
Practitioners
and friends /#hpc

Posts

gaborsamu	LSF client on macOS - submitting from your laptop	01.03.2023
gaborsamu	Monitoring .-.. ... ..-. (IBM Spectrum LSF) with the TIG stack	24.01.2023
ajdecon	Adam's weekly (-ish) update, 2022-12-20	20.12.2022
gaborsamu	Visualizing Spectrum LSF data with Grafana	13.12.2022
ajdecon	Adam's weekly update, 2022-12-04	05.12.2022
markhpc	An Initial Look at Deep Learning IO Performance	28.11.2022
ajdecon	Adam's weekly update, 2022-11-27	27.11.2022
glennklockwood	SC'22 Recap	24.11.2022
vsoch	Converged Computing	18.11.2022
markhpc	Ceph OSD CPU Scaling - Part 1	08.11.2022
vsoch	Containerize It, Baby!	03.11.2022
ajdecon	happy living close (-ish) to the metal	02.11.2022
ajdecon	The web services I self-host	30.10.2022

Community Blog



Community Aggregated Blogs

hpc.social

High Performance Computing Practitioners and friends /#hpc

Search by keyword

Job Type | Location | Employer

Posted after | Remote Options

mm/dd/yyyy

Show jobs that were posted on (and after) selected date

Show 20 jobs

Clear search

Name	Job Type	Employer	Location	Expires	Posted	Remote Options
Sr HPC Infrastructure Engineer	Full-Time	Tesla	Palo Alto, CA	4/30/2023	3/9/2023	Fully onsite
Cloud HPC / Cluster Developer	Full-Time	PSSC Labs	Irvine, CA	5/1/2023	3/8/2023	Remote friendly
Assistant Director for Engagement	Full-Time	The National Center for Supercomputing Applications	Urbana, Illinois	3/20/2023	3/7/2023	Remote friendly
Senior Assistant Director of Strategic Initiatives	Full-Time	The National Center for Supercomputing Applications	Urbana, Illinois	3/20/2023	3/7/2023	Remote friendly
HPC Senior Systems Engineer	Full-Time	Northwestern University	Evanston, IL	6/1/2023	3/30/2023	Hybrid
HPC Systems Engineer	Full-Time	Northwestern University	Evanston, IL	6/1/2023	3/30/2023	Hybrid
HPC Lead Systems Engineer	Full-Time	Northwestern University	Evanston, IL	6/1/2023	3/30/2023	Hybrid
HPC Infrastructure Engineer	Full-Time	Berkeley Square IT	Europe	5/31/2023	3/28/2023	Fully remote

Jobs Board

hpc.social

High Performance Computing
Practitioners
and friends /#hpc

About the hpc.social Jobs

We aspire to provide a job board that is easy to search and contribute to! Criteria for your job should generally be something related to high performance computing, whether that is a linux administrator, an application developer, or a user-support specialist. You can use your best judgment. Any jobs reported by a community member to not be within this scope will be put up for discussion to the larger community and removed if deemed not in scope. To add a job, you can either open a pull request to directly add a new addition to the `_data/jobs.yaml` file, or fill out our form. The form is also provided here for convenience. Submissions are validated nightly, and links checked for spam or otherwise malicious content. If you don't see your job appear the next day, please open an issue here. You can also retrieve the latest jobs via any of these feeds:

feed.json atom.xml

Submit A Job

Title

E.g., "Linux Administrator" or "Applications Developer"

Employer

The name of your company, institution, or group.

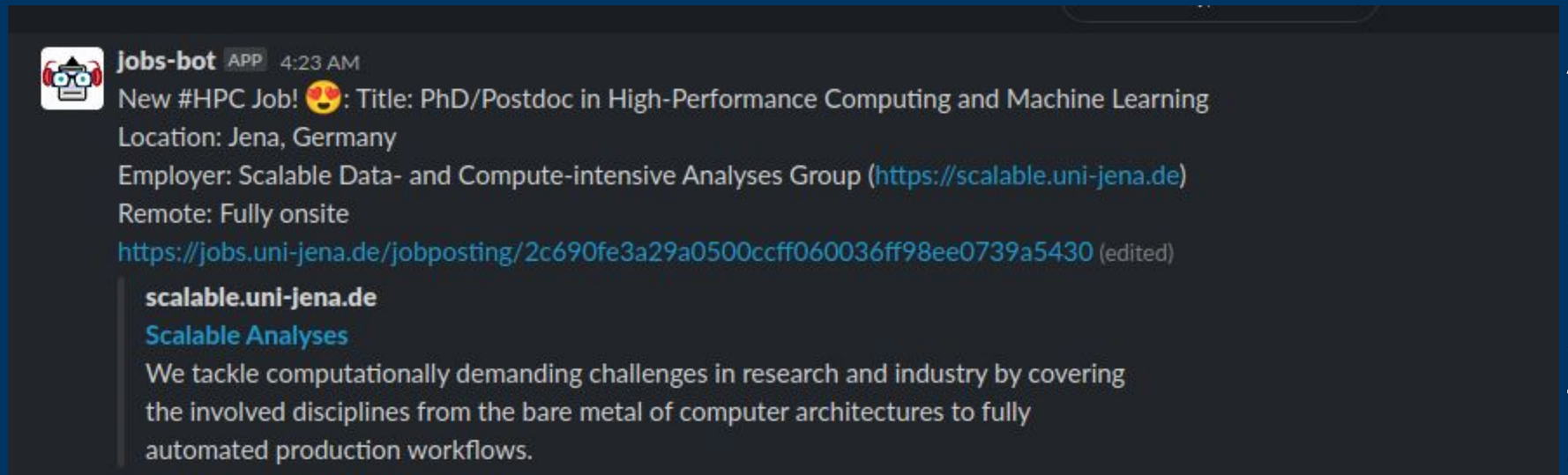
Link to Posting

Please provide a link to the primary job posting or description.

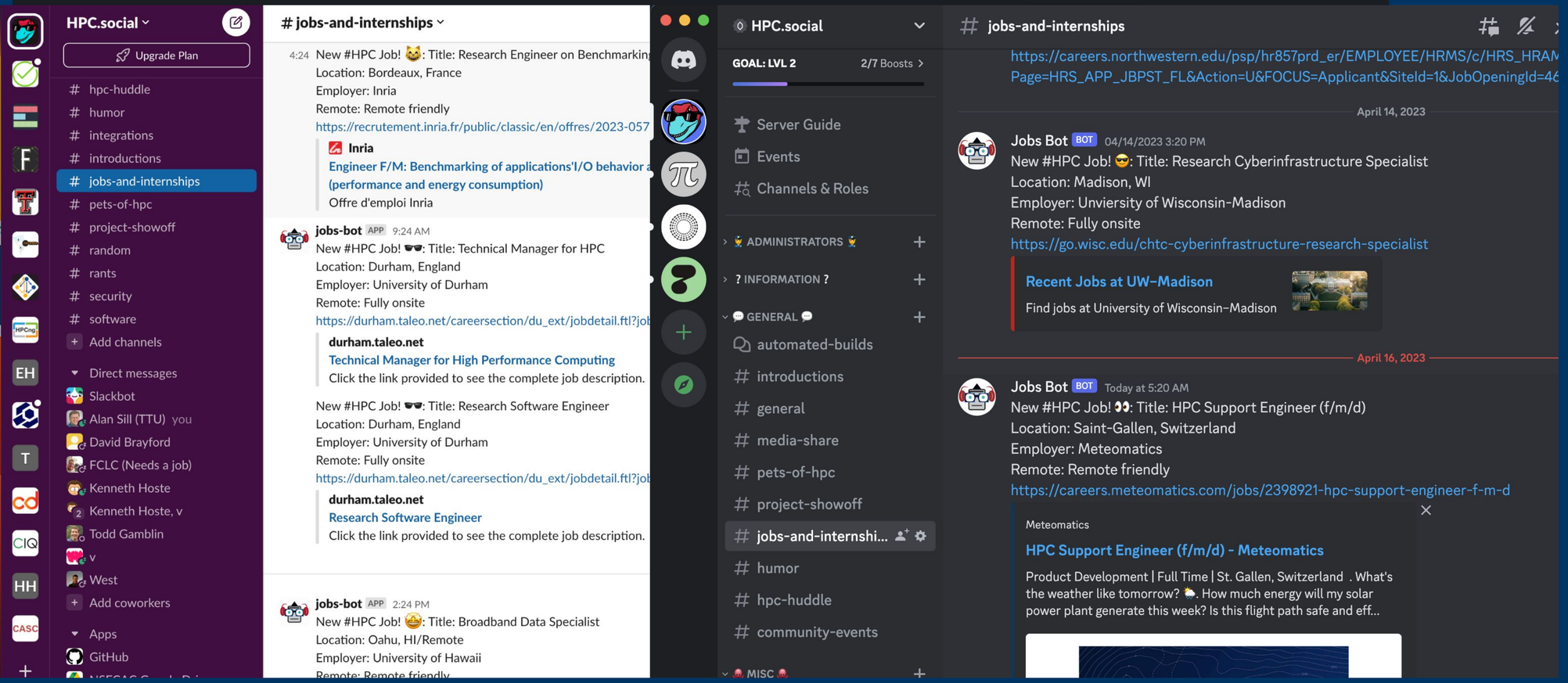
Location

E.g., "Boulder, CO" or "Remote"

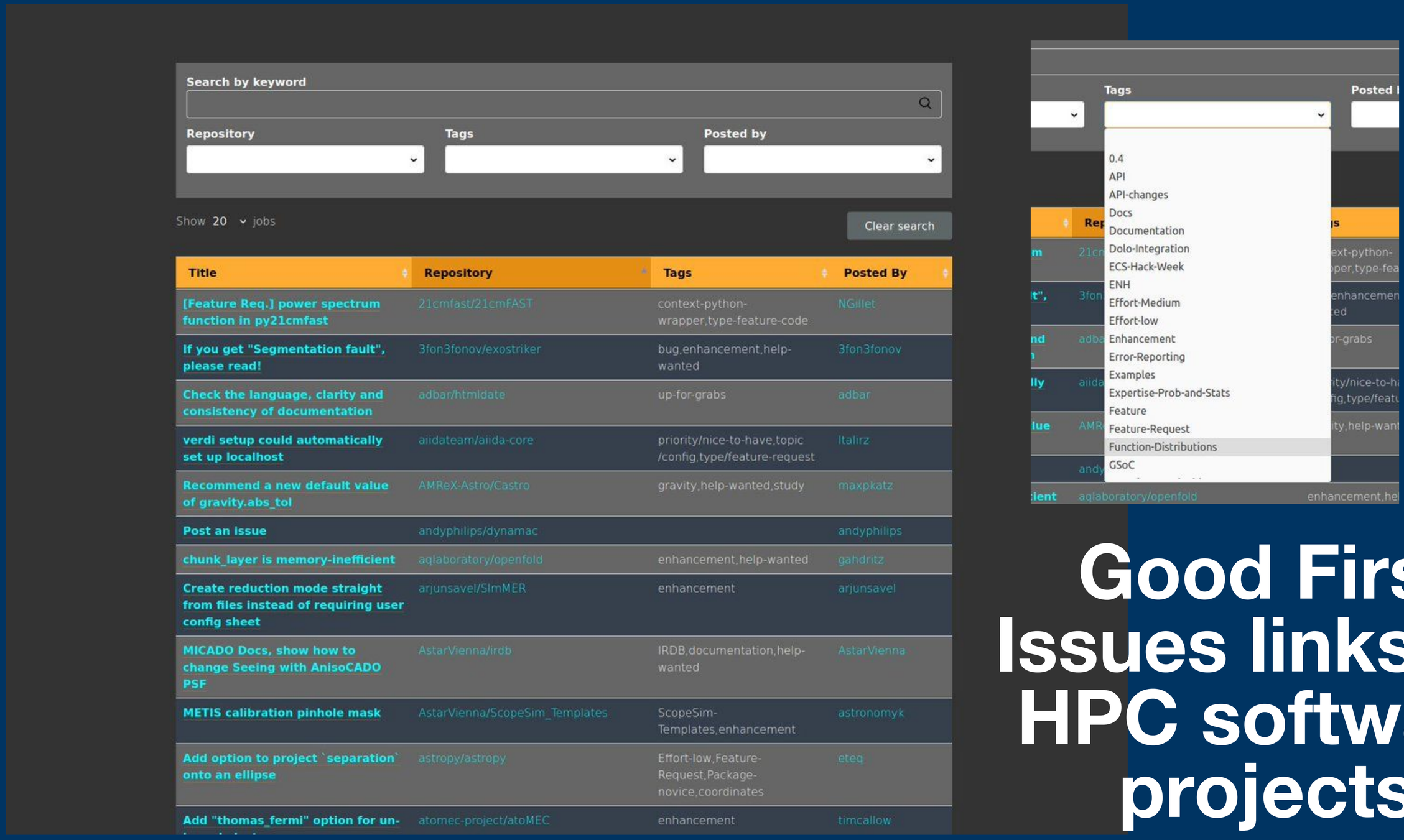
Jobs Board



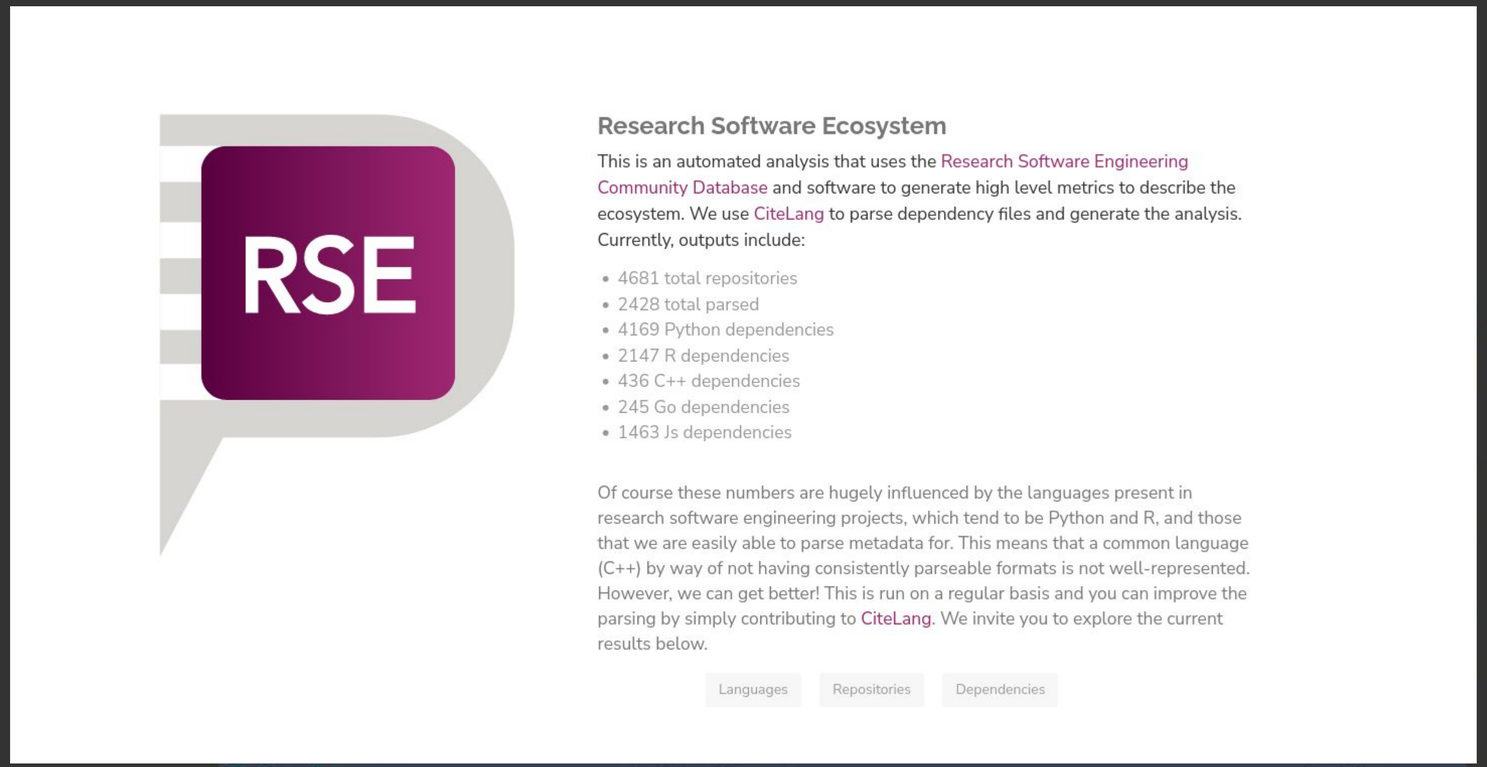
All of these positions are posted after review to the hpc.social Mastodon by the @jobs-bot@mast.hpc.social bot and to the hpc.social Slack and Discord servers in the #jobs-and-internships channels for wider distribution



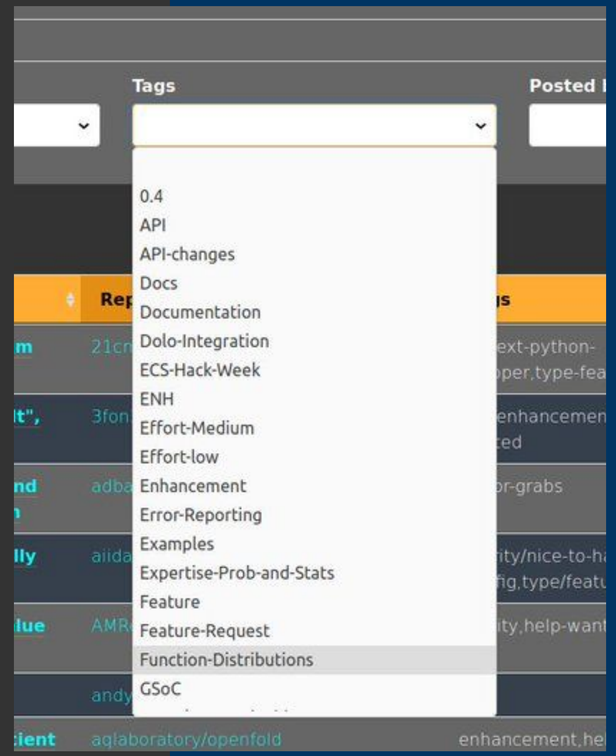
Jobs Board Cross-Posting



Good First Issues links for HPC software projects

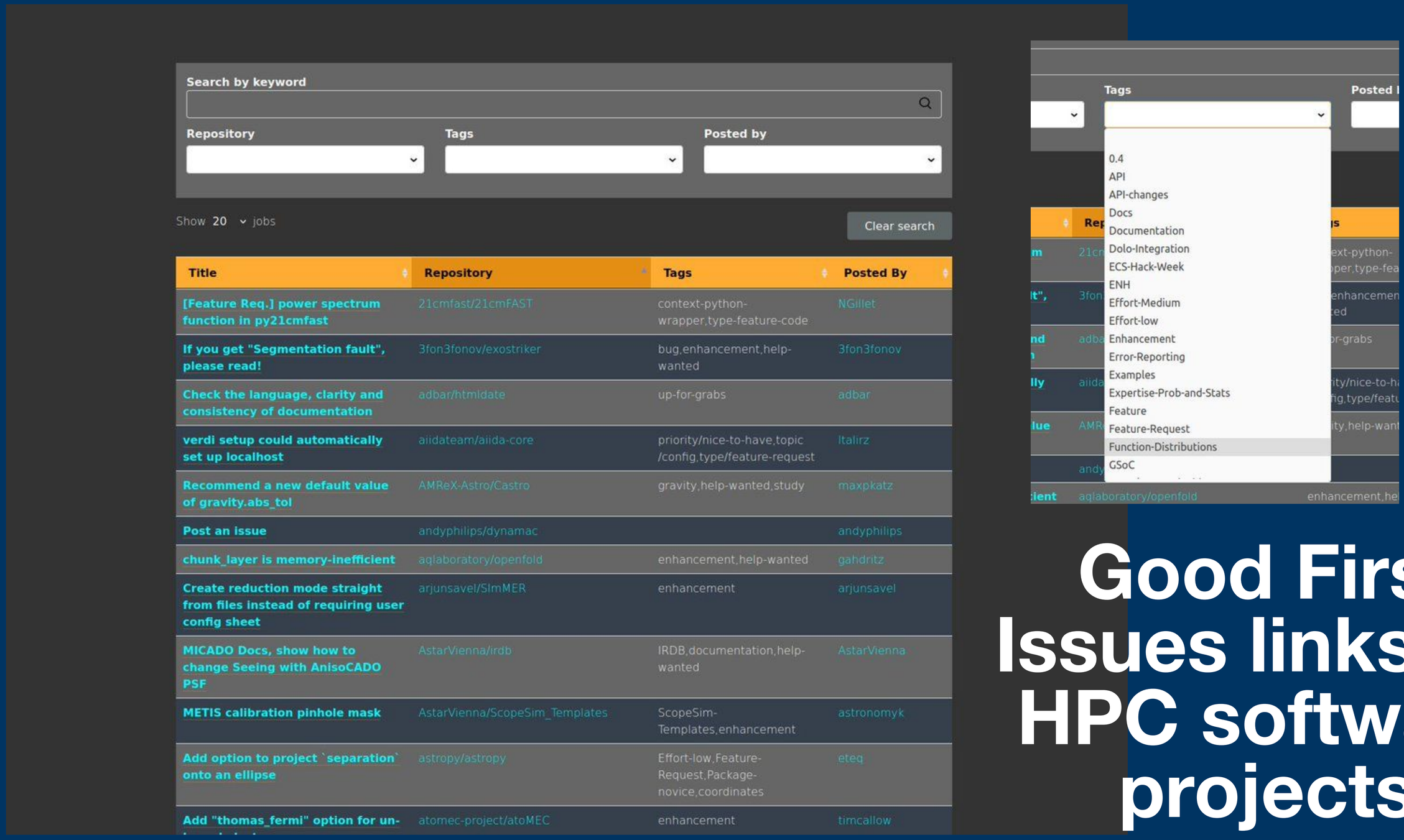


Repositories derived from the Research Software Encyclopedia



Post an issue	andyphilips/dynamac		andyphilips
	enfold	enhancement,help-wanted	gahdritz
	ER	enhancement	arjunsavel
PSF		IRDB,documentation,help-wanted	AstarVienna
METIS calibration pinhole mask	AstarVienna/ScopeSim_Templates	ScopeSim-Templates,enhancement	astronomyk
Add option to project `separation` onto an ellipse	astropy/astropy	Effort-low,Feature-Request,Package-novice,coordinates	eteq
Add "thomas_fermi" option for un-	atomec-project/atoMEC	enhancement	timcallow

Good First Issues links for HPC software projects



Good First Issues links for HPC software projects

Events Coming soon! Times are in UTC

hpc.social

High Performance Computing Practitioners and friends /#hpc

today

March 2023

month week day list

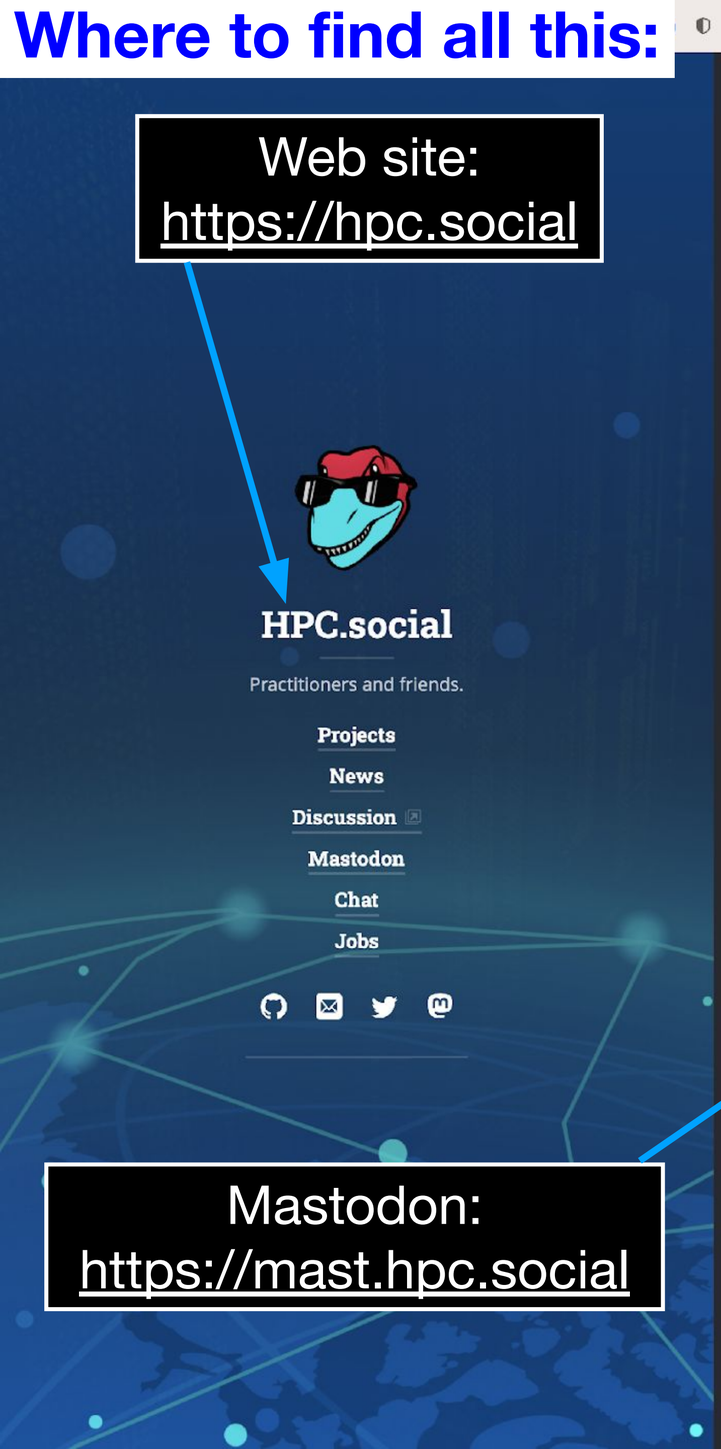
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
W9	26	27	28	1	2	3	4
W10	5	6	7	8	9	10	11
W11	12	13	14	15	16	17	18
W12	19	20	21	22 1p Container Plumbin	23	24	25
W13	26	27	28	29	30	31	1
W14	2	3	4	5	6	7	8

© hpc.social community | About | Mastodon Contribute on GitHub

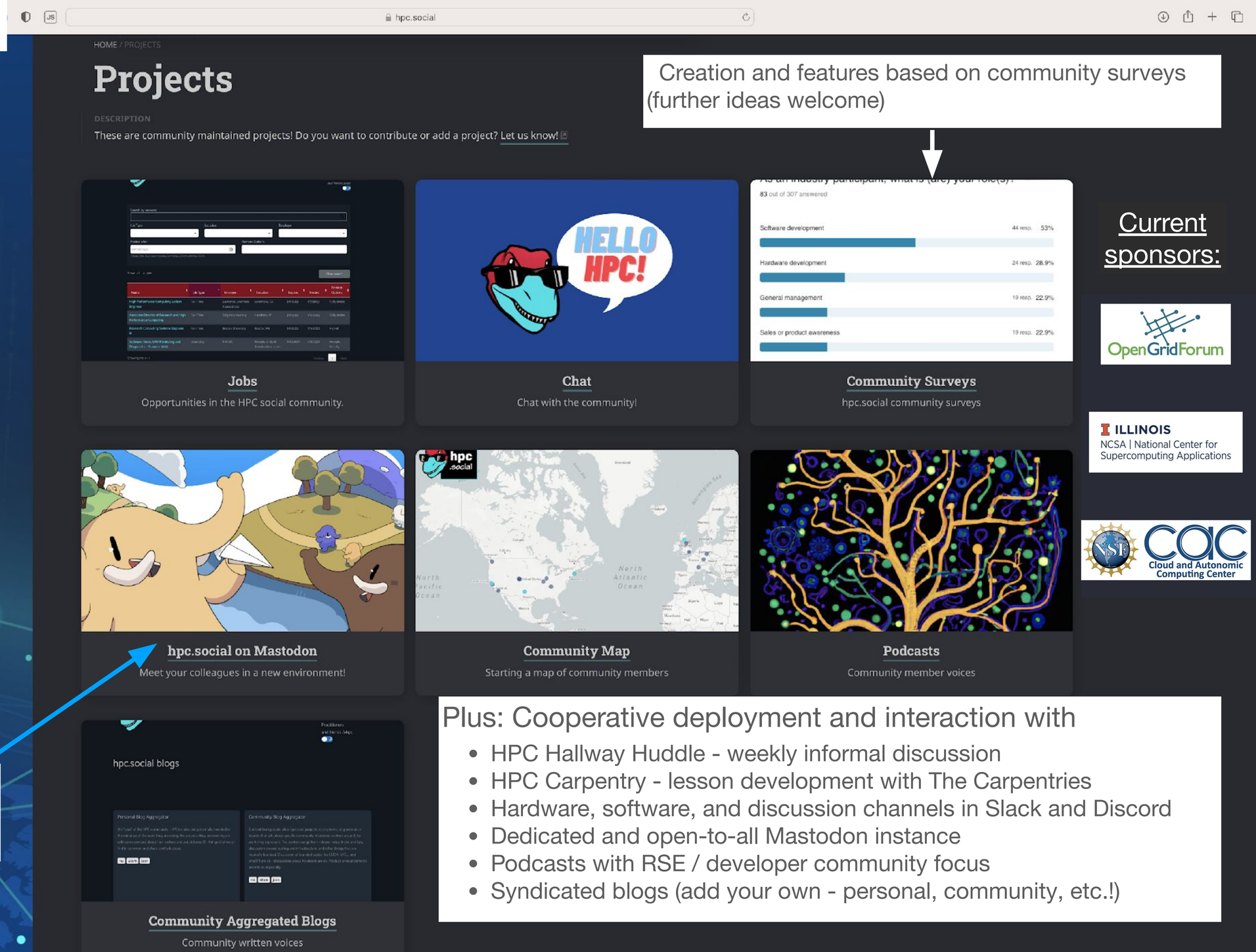
Events Calendar (work in progress)

Where to find all this:

Web site:
https://hpc.social



Mastodon:
https://mast.hpc.social



Creation and features based on community surveys (further ideas welcome)

Current sponsors:

OpenGridForum

ILLINOIS
NCSA | National Center for Supercomputing Applications

NSF CAC Cloud and Autonomic Computing Center

Plus: Cooperative deployment and interaction with

- HPC Hallway Huddle - weekly informal discussion
- HPC Carpentry - lesson development with The Carpentries
- Hardware, software, and discussion channels in Slack and Discord
- Dedicated and open-to-all Mastodon instance
- Podcasts with RSE / developer community focus
- Syndicated blogs (add your own - personal, community, etc.!)

Most of this is in an open public code repository to which *you* can contribute!

Repository-Based

https://github.com/hpc-social

Community Sponsored

Community Driven!

Multiple Projects:

Social and Communication Resources

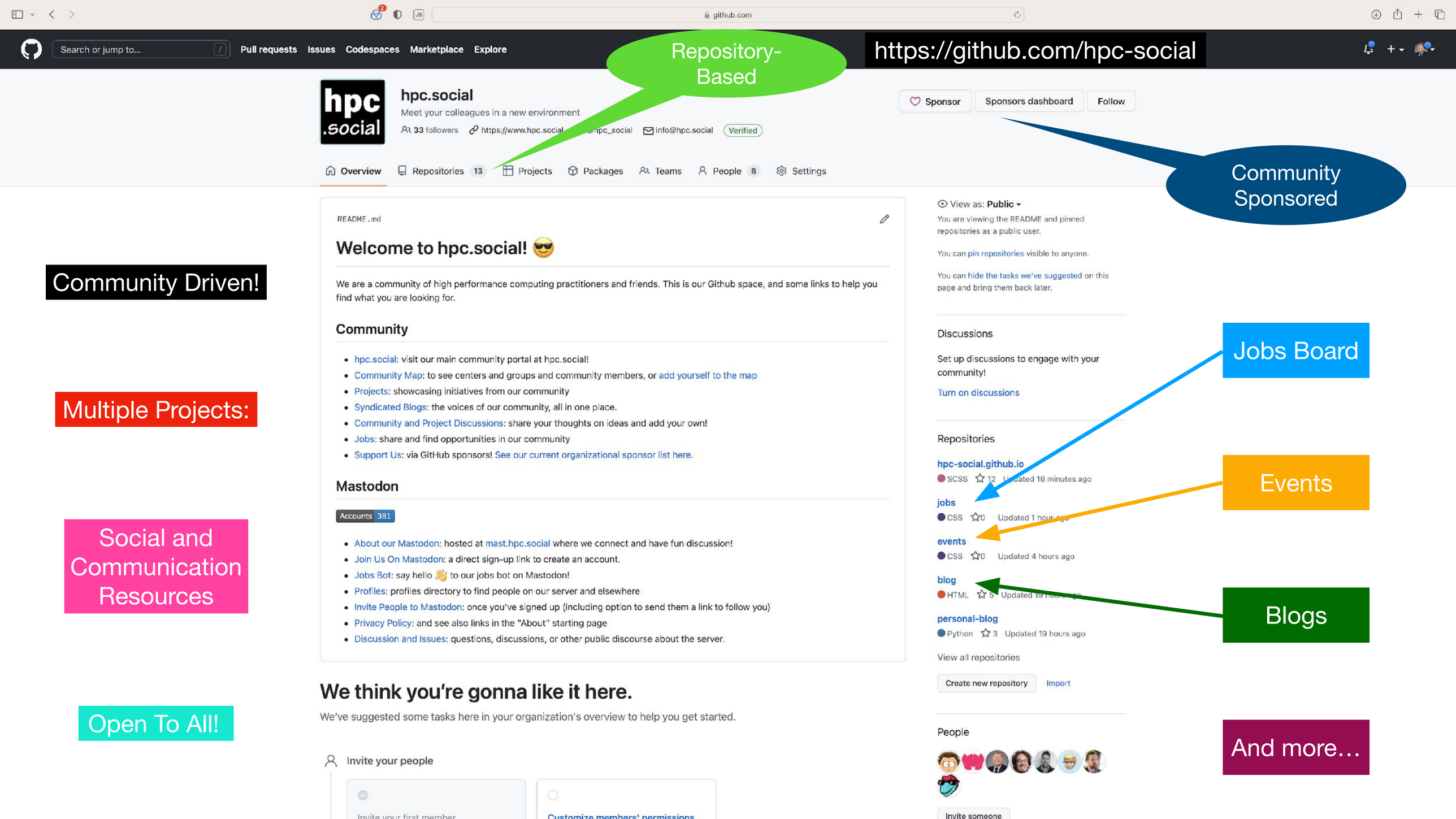
Open To All!

Jobs Board

Events

Blogs

And more…



What comes next?

What would you like to see?

- Events automation (bots posting on slack, etc.)
- Annual hpc.social virtual social event (interactive game or similar)
- Annual community survey

What would you like to see?

- Events automation (bots posting on slack, etc.)
- Annual hpc.social virtual social event (interactive game or similar)
- Annual community survey
- Something else?

Thank you!

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Vanessa Sochat @vsoch

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https://hpc.social