

Expanding Facilitation Impacts

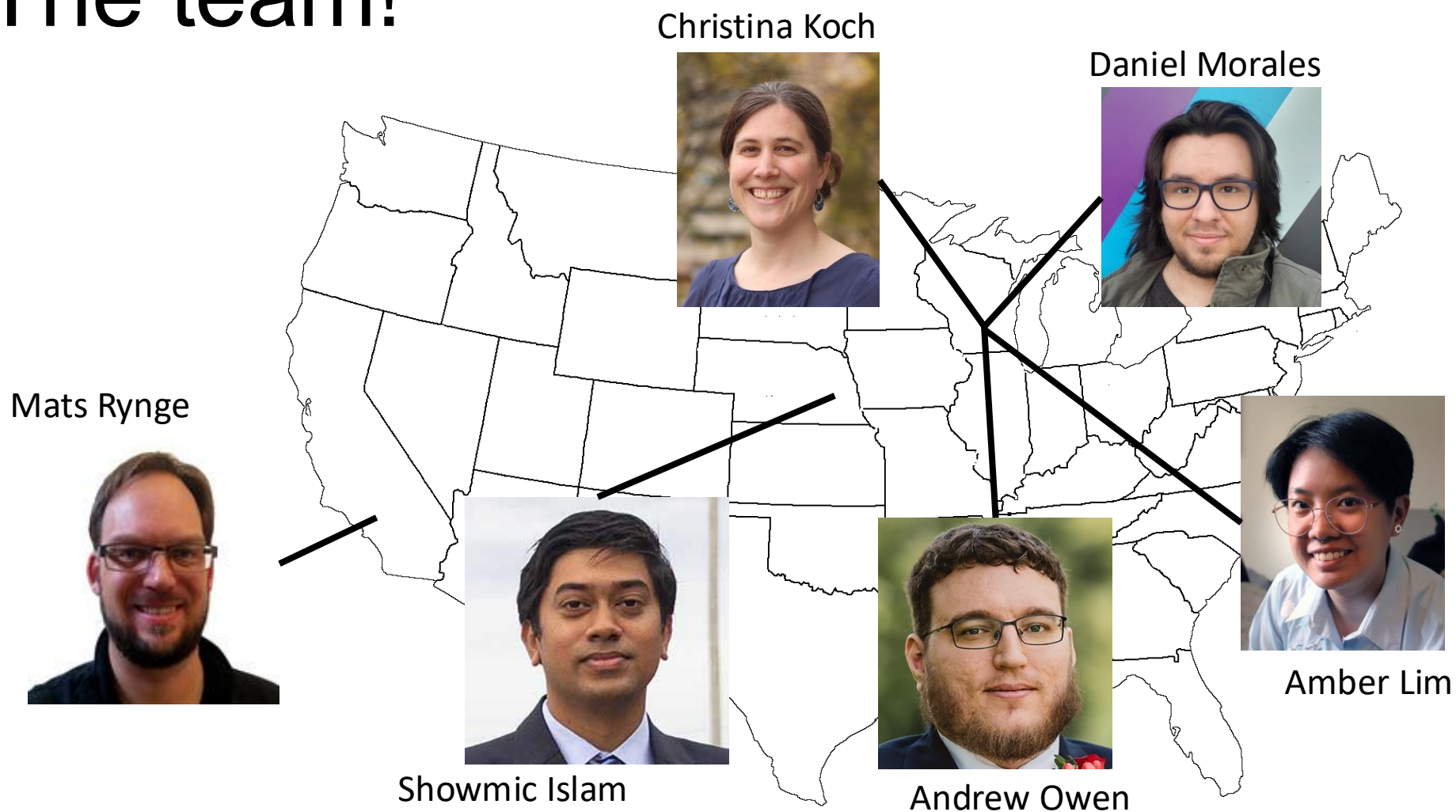
Christina Koch

Research Computing Facilitation Lead

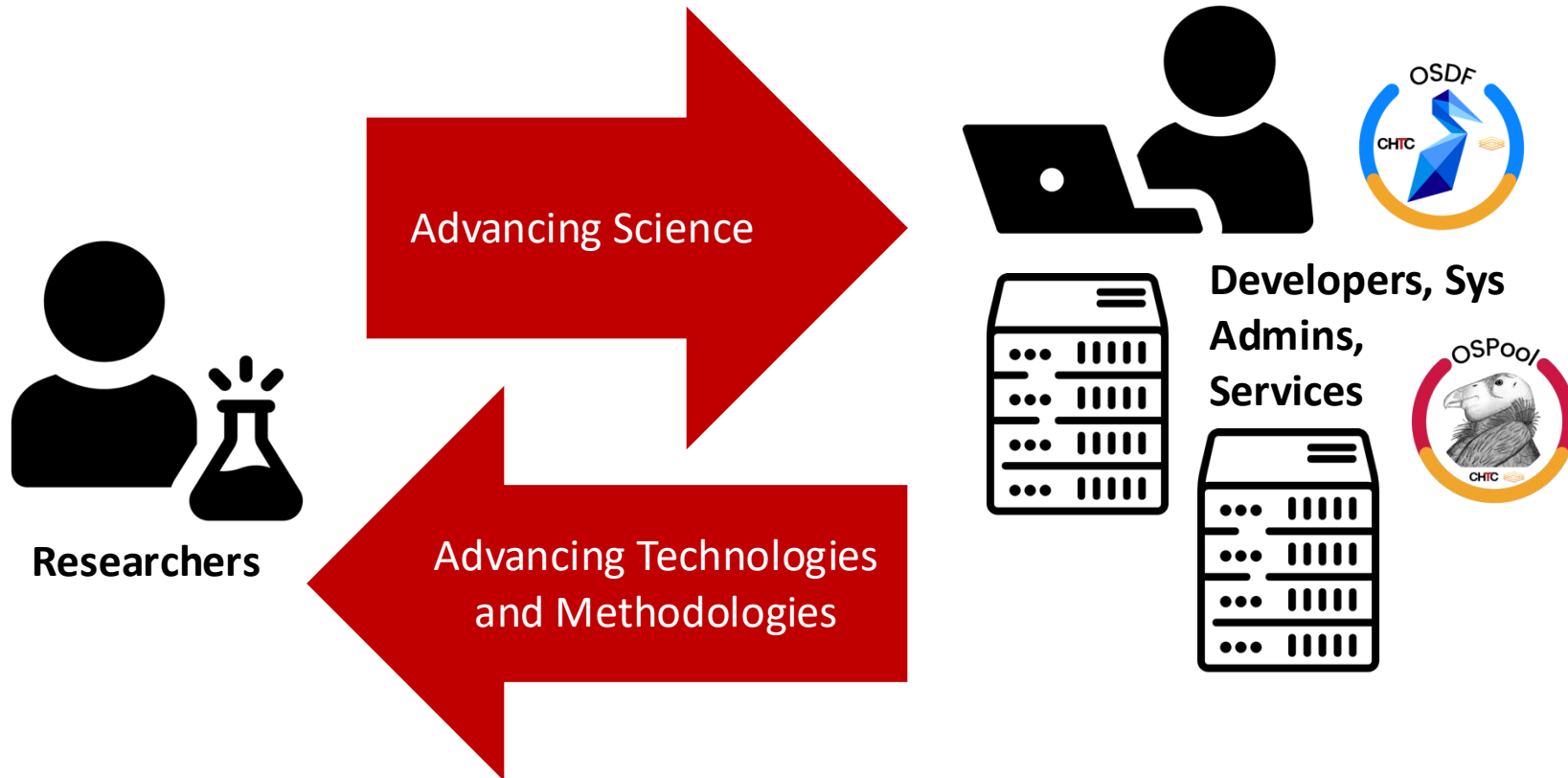
CHTC / UW – Madison

HTC 25 – June 2, 2025

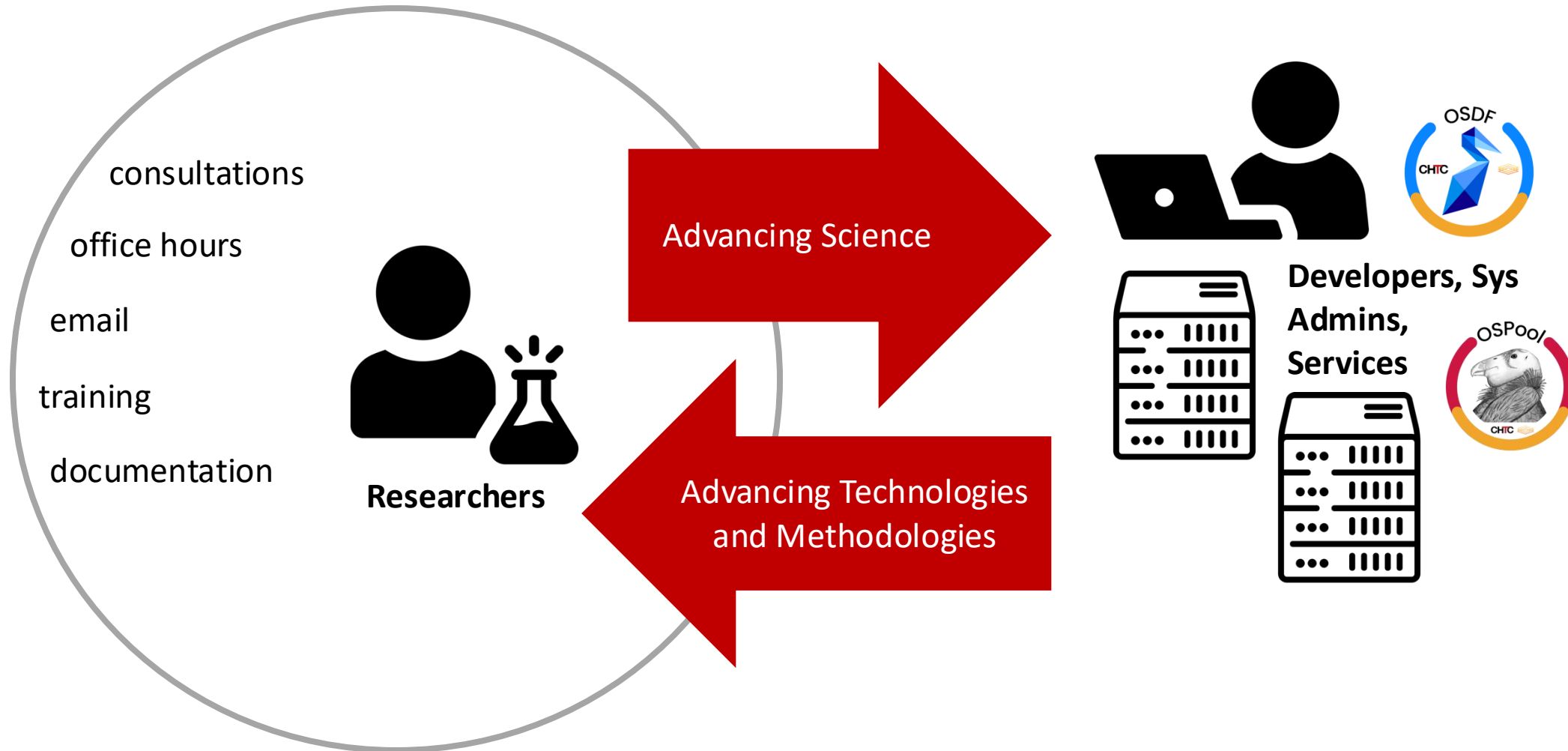
The team!



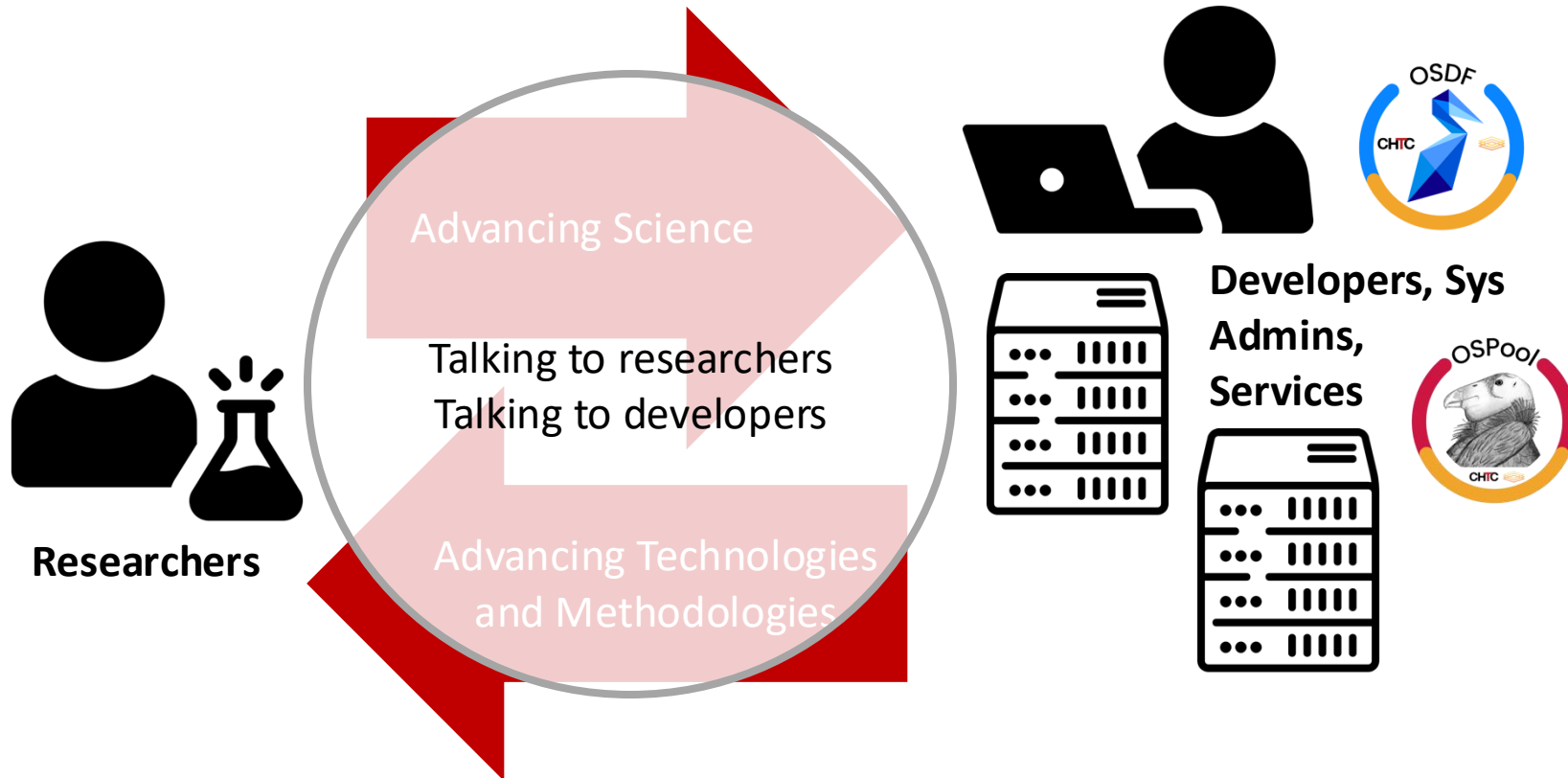
What we do



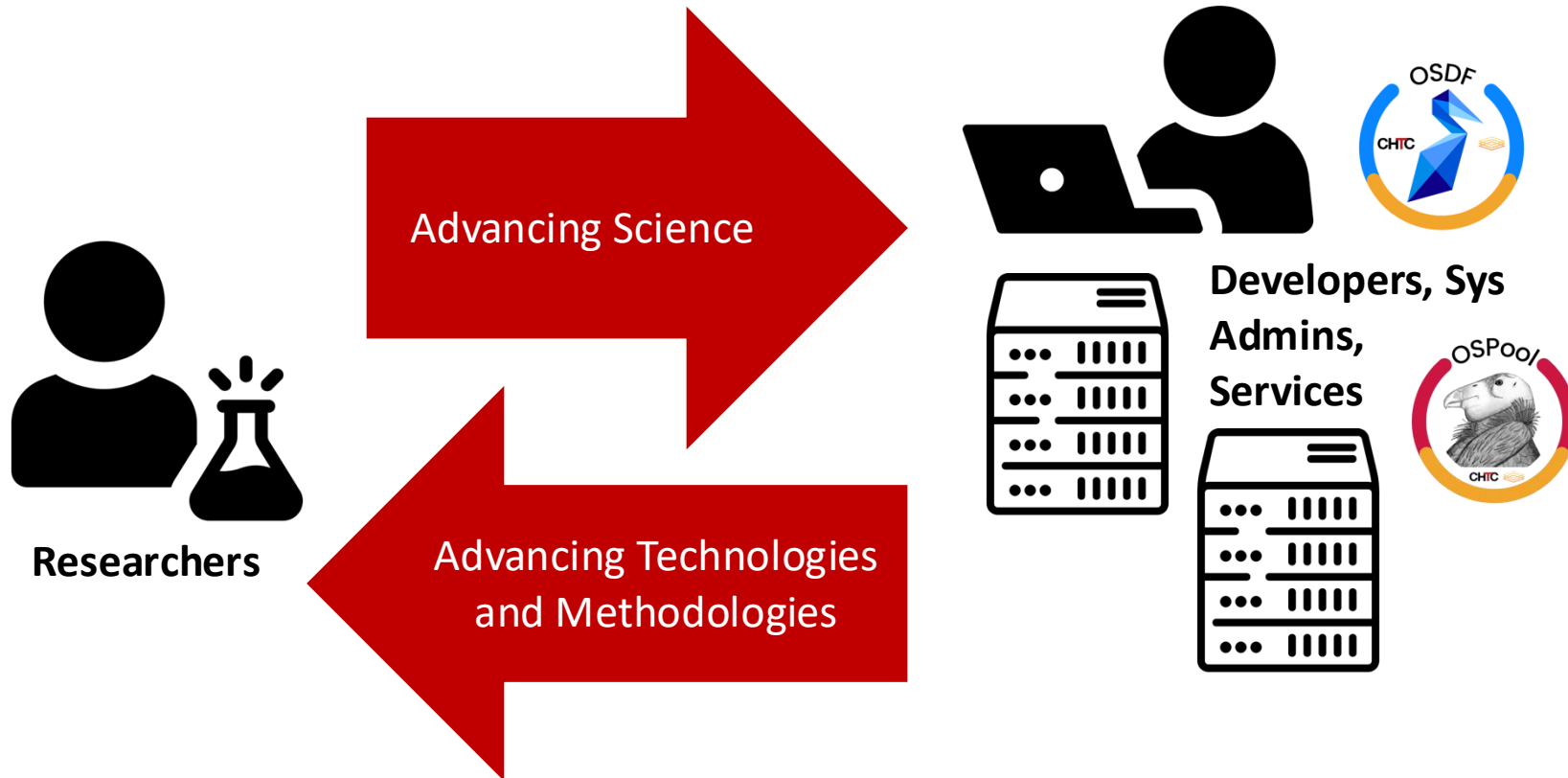
What we do



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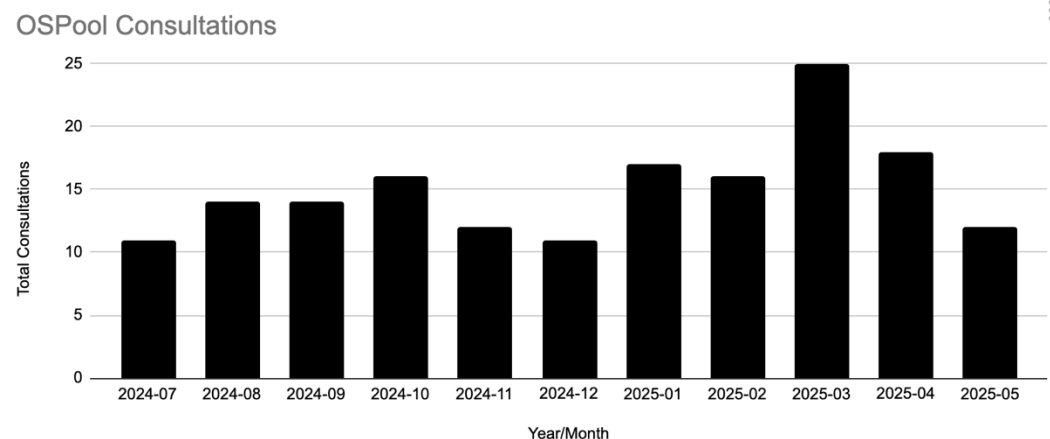


What we do



(Will revisit this flow with a broader campus-focused lens on Wednesday!)

Some numbers...



99

Total office hours visits

May 2025

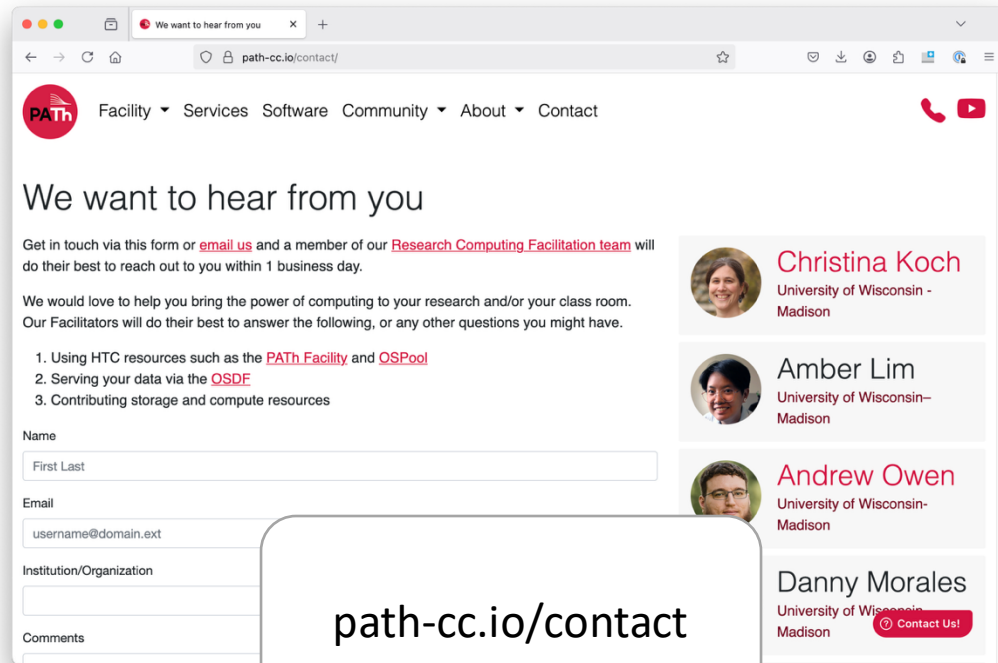
Busiest month (18 visits)

Most popular training topics (20+ attendees)

GPUs and Machine Learning in the OSPool

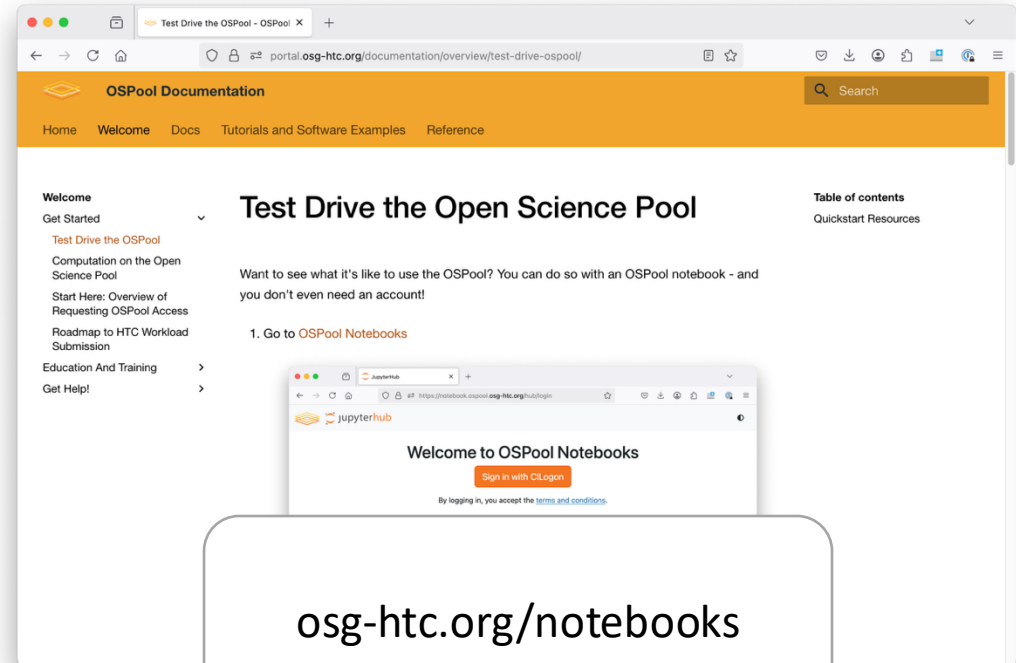
Adapting Workflows for High Throughput Bioinformatics

New ways to connect



The screenshot shows a web browser window with the URL `path-cc.io/contact/`. The page has a header with the PATH logo and navigation links: Facility, Services, Software, Community, About, and Contact. The main heading is "We want to hear from you". Below this, there is a paragraph stating that a member of the Research Computing Facilitation team will respond within 1 business day. A list of three points follows: 1. Using HTC resources such as the PATH Facility and OSPool, 2. Serving your data via the OSDF, and 3. Contributing storage and compute resources. At the bottom, there are input fields for Name (First Last), Email (username@domain.ext), Institution/Organization, and a Comments section.

path-cc.io/contact



The screenshot shows a web browser window with the URL `portal.osg-htc.org/documentation/overview/test-drive-ospool/`. The page has an orange header with the title "OSPool Documentation" and a search bar. The main heading is "Test Drive the Open Science Pool". Below this, there is a paragraph stating that users can test the OSPool with an OSPool notebook without needing an account. A list of steps follows: 1. Go to OSPool Notebooks. An inset image shows a JupyterHub interface with the heading "Welcome to OSPool Notebooks" and a "Sign in with CILogon" button.

osg-htc.org/notebooks

Focusing on research domains

PATH is now a NAIRR resource provider.

<https://path-cc.io/nairr>

(Learn more about our own work on Thurs. morning.)

Working with a researcher running evolutionary simulations, with plans to reach out to that community.

AI

Facilitating use of Alphafold3 on the PATH Facility.

Biology

Developing bioinformatics-focused materials and workflows, showcasing a variety of tools.

Evolution

(More bio/evolution talks this morning and afternoon!)

Teaching on the OSPool

SeattleU_CPSC_5520_2025Sprin Close

PI Nate Kremer-Herman	Description Teaching a distributed systems course. Assignments will be at-scale applications including a parallel video rendering pipeline, a genome analysis application, and a text analysis workflow
Field of Research Computer and Information Science	
Organization Seattle University	
Where Jobs Have Run	
Resource Usage	
Jobs Ran by SeattleU_CPSC_5520_2025Sprin 6,636,226	SeattleU_CPSC_5520_2025Sprin's CPU Core h ⓘ 159,168

The OSPool can be used as a platform for courses and training.

For educators

- Accessible, open capacity
- Authentic tasks

For us

- A broader variety of users

https://portal.osg-htc.org/documentation/support_and_training/training/ospool_for_education/

Building a data community

Previously...

- Experience in integrating campus computing into the OSPool
- OSDF access tied to OSPool account

New questions this year

- How do we integrate campus storage into the OSDF?
- How do we provide access to objects *not* in the context of an OSPool Access Point?

Other talks about this

- Frank (up next)
- Tim and Christina (Wednesday morning)

Facilitating a feedback cycle

OSPool Advisory Group

- Met through 2024
 - feedback on new HTCSS command line interface
 - suggestions for OSG School incorporated over last year and this year (preparation for School, follow up survey, 1-1 meetings)
- On hiatus this year; want to bring back for 2025-06.

Regular UX Meetings (HTCSS + Pelican)

- HTCSS
 - Improvements to error messages and other outputs
 - New attributes or submit options
- Pelican
 - Documentation development
- Both
 - CLI improvements, bug reports

Testing technologies

Case study: ARM processors in the OSPool

- HTCSS → multi-architecture support
- Facilitation → write up a preliminary guide
- Campus contributor → provide ARM CPUs
- Facilitation → identify beta testers → provide additional support for testing
- Everybody → monitor the results

I've run some tests, and out of 90 cases, on average, one of the ARM64 nodes takes 0.92 times as long to accomplish the same work as the X86 nodes for poorly optimized Python.

At best, they seem to be about 3x as fast, and at worst, they seem to be about 1.6 times slower.

...

I'll run some heavier workloads in the next couple of weeks and let you know if I notice anything further.

What's next?

- More work with OSDF / campus storage contributions (OSStore)
- Networking within communities of interest (specific science domains, instructors/teachers)
- User feedback
 - Bring back OSPool advisory group
 - OSG School + general user surveys

Questions?

Contact us! <https://path-cc.io/contact/>

Acknowledgements

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