Publishing and Discovering Cybertraining Materials Across the HPC and CI Research Communities

Infrastructure Discussion
HPC Training Ecosystem in Europe

CyberTraining: Pilot: HPC ED: Building a Federated Repository and Increasing Access through Cybertraining is supported by NSF grant OAC-2320977

HPC-ED Team

Rich Knepper
Cornell University

Susan Mehringer
Cornell University

Brian Guilfoos
OSC

David Joiner
Kean University

Kate Cahill
NJIT

JP Navarro
U. of Chagro/Argonne

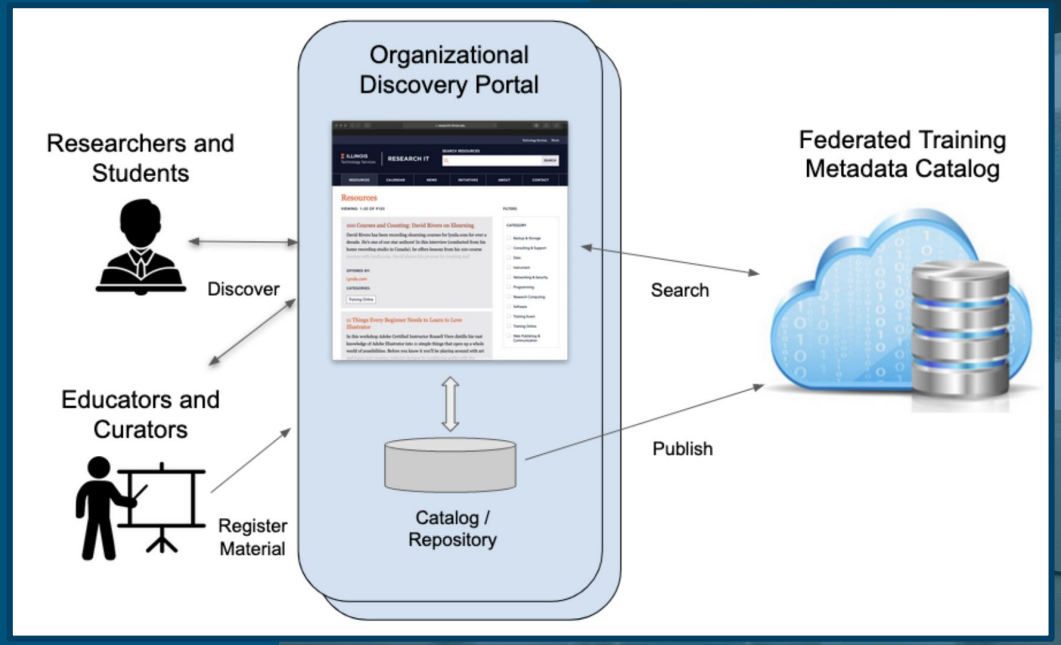
Mary Thomas
SDSC

Je'aime Powell
Omnibond

Charlie Dey
TACC

HPC-ED Project Overview

- 1 year pilot project (on a no cost extension)
- Project Goals:
  - Make existing HPC/CI Training and Education materials more findable
  - Create a federated catalog that can be easily searched
  - Facilitate community use of project tools and provide feedback
- Project site: https://hpc-ed.github.io/
- Documentation: https://github.com/HPC-ED/HPC-ED.github.io/wiki



HPC-ED Background & Activity

Survey - Discovering and Sharing HPC Training Materials

BoF - PEARC23 - Community FAIR: Access to FAIR HPC Training Materials

Tutorial - PEARC24 - Publishing and Discovering Cybertraining Materials Across the HPC and CI Research Communities

Pilot - Cybertraining Award OAC 2320977

ACCESS Partnership - collaboration with ACCESS Support and Operations on sharing and discovery for the long tail, and the platform

Workshop - SC24 - Eleventh SC Workshop on Best Practices for HPC Training and Education

Core Functions: Sharing & Discovery

Many organizations with local metadata

➔ Share by publishing

Any organization needing discovery

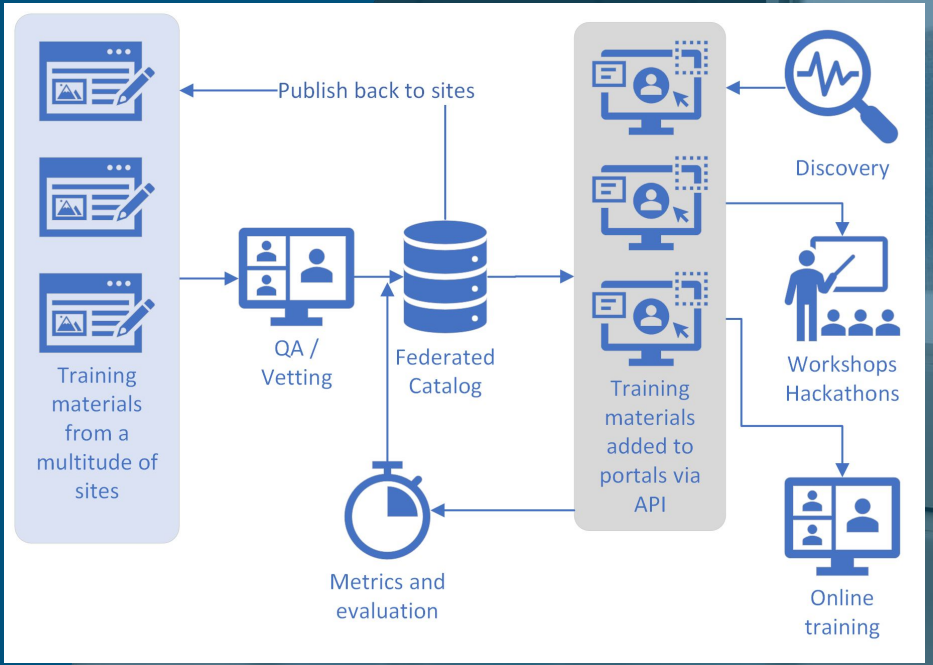
➔ Search HPC-ED catalogs

Individuals with training but no metadata

➔ Use a community registration portal

Individuals looking for training

➔ Use a community discovery site



Minimal Metadata

Minimal to enable search and discovery

Required Metadata

- Training: Title, URL, URL Type, Language, Cost, Provider
- Platform: Unique ID (Subject)

Recommended Metadata

- Abstract, Authors, Keywords
- Target Group, Expertise Level
- Learning Outcome
- Learning Resource Type
- License, Version Date
- Start Datetime, Duration
- Rating

https://github.com/HPC-ED/HPC-ED.github.io/wiki/Metadata-Description

Our Documentation

- Project site: https://hpc-ed.github.io/
- Guides -> Wiki: https://github.com/HPC-ED/HPC-ED.github.io/wiki
  - Metadata: fields, vocabulary
  - Publishing: pre-requisites, formats, tools & methods
    - Command line, Python SDK
  - Discovery: tools & methods
    - Command line, Python SDK, Javascript SDK
  - Quickstart using the command line
- Globus Search: https://docs.globus.org/api/search/

Future Plans

- Submitting funding proposals for continued development
- Improved ingest pathways
  - Synchronize to local catalog sources
- Better search tools (easy to embed in local portals)
- Continue to grow the community