Open Training for Sustainable HPC & AI Skills

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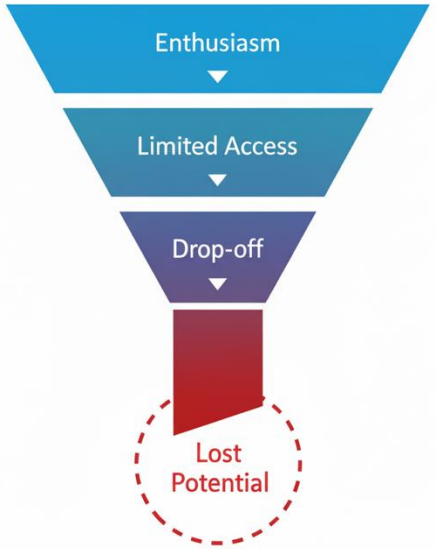
Empowering the people behind HPC and AI through open learning.

The Growing Skills Gap in HPC + AI

Challenge	Impact
Fragmented access to HPC/AI training	Slower adoption in academia & research
Rapid tech evolution	Constant reskilling needed
Uneven participation	Underrepresented groups left out
Lack of structured pathways	Knowledge loss, siloed expertise

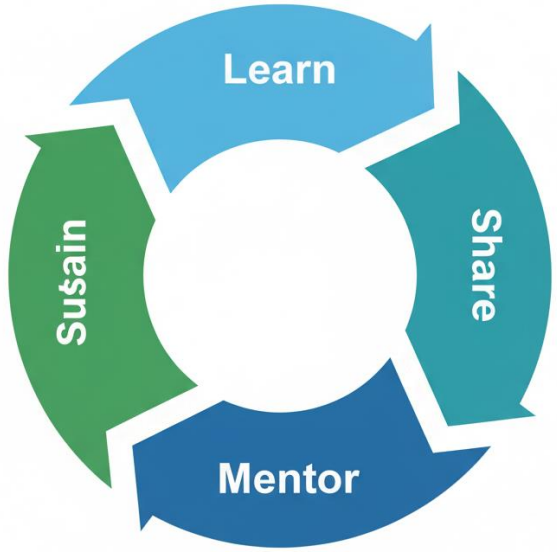


Examples of Open Training Pathways

- Self-Paced Labs
  - Interactive, browser-based environments (e.g., JupyterLab, HPC clusters, GPU instances).
  - Allow learners to explore HPC/AI workflows safely and repeatably.
- Developer Certifications
  - Structured learning paths validating AI/HPC fundamentals.
  - Free or low-cost options like NVIDIA’s Developer Certification, Carpentries Badges or LinkedIn Learning.
- Community Ambassador Programs
  - Peer-to-peer mentorship networks.
  - Amplify learning impact through workshops, talks, and mentoring new contributors.
- Complementary Initiatives
  - HPC Carpentry, PRACE Training Portal, OpenHackathons, and The Carpentries Incubator as ecosystem partners.

Sustainability Through Shared Learning

- Shared curricula across universities and research labs.
- Mentorship pipelines → turning learners into leaders.
- Reduced duplication through reusable, open materials.
- Recognition for contributors (badges, community credits).



“The sustainability of scientific software depends as much on open learning communities as on open code.”

What models have worked in your institution for scaling HPC/AI skills training, and how can we interconnect them?