



# Is Training Easy or Hard?

Henry Neeman

Director, OU Supercomputing Center for Education & Research (OSKER)  
XSEDE Campus Engagement Co-manager  
University of Oklahoma

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# Outline

- Training is Easy
- Training is Hard

Please feel free to ask questions at any time. I like interacting.



# Training is Easy

- When we get a new user, we generally have one hour to get them from zero to fully productive.
  - We could go a lot deeper, except they don't have time -- and neither do we.
- We've got a little exercise we use at workshops to get people from zero Linux experience to running a toy batch job.
- It just takes a little bit of talking through the issues, then working with them on a batch script, then showing them how to run it.



# Training is Hard

- Researchers come to us with zero experience with:
  - Command line
  - Linux
  - Batch
  - It's not the technology, it's the mindset.
- Even people who do a lot of training have a hard time remembering what it's like to be a beginner.
  - Most people have tremendous difficulty seeing things through someone else's eyes.
  - It's not a lack of empathy; it's inexperience with imagining what someone else's perspective might be.



# The Mindset Gap

- In the olden days -- say, 10 years ago -- we used to say that our typical new Cyberinfrastructure user came from a Windows desktop or laptop background.
  - Those days are long gone ....
- Nowadays, we say that our typical new user comes from an iOS or Android background.
- How has that changed our job?



# Mental Distance

- What's the mental distance between a handheld vs Linux, command line, batch computing?
  - Installing software
    - Handheld: Tap 3 times.
    - Large scale
      - EasyBuild if you're lucky
      - Configure/make with modest dependencies if you're unlucky
      - Bizarre random weirdness in practice.
  - Installing storage
    - Handheld: Buy a card for \$10-50, pop it into the slot, the OS automatically recognizes it and starts using it.
    - Large scale: RFP, bid evaluation, configuration, purchase, deployment, maintenance, annual support costs.
      - Planning for refresh starts the day you send the PO.

# Your Trainers Need Training in How to Train

- Your trainers may not be good at imagining:
  - what your users know;
  - what your users don't know;
  - what your users need to know.



# Before

## Addresses and Naming

- Two address spaces
- Ethernet
  - IPv4 -- 10.251.80.0/22
  - IPv6 --  
fd18:deca:fbad:cafe::/64
- IPoIB
  - IPv4 -- 10.251.84.0/22
  - IPv6 --  
fd1c:deca:fbad:cafe::/64

- **Login**
  - schooner1.oscer.ou.edu
  - schooner2.oscer.ou.edu
  - schooner3.oscer.ou.edu
- **Data Transfer**
  - dtn1.oscer.ou.edu
  - dtn2.oscer.ou.edu
- **Scheduler**
  - odin.oscer.ou.edu
- **Compute**
  - c001-c500
- **Large Memory**
  - andre.oscer.ou.edu



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# After

## User-Accessible Nodes

### Interactive Access (via SSH)

#### Login Nodes

schooner1.oscer.ou.edu

schooner2.oscer.ou.edu

schooner3.oscer.ou.edu

#### Data Transfer Nodes

dtn1.oscer.ou.edu

dtn2.oscer.ou.edu

### Via Batch Scheduler

#### Compute Nodes

c001-c499

#### Large RAM Node

andre.oscer.ou.edu

(Named for Andre the Giant:  
big!)





# Thanks for your attention!

# QUESTIONS?



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