



Introduction to Research Facilitation

Henry Neeman, University of Oklahoma

**Director, OU Supercomputing Center for Education & Research (OSCER)
Assistant Vice President, Information Technology - Research Strategy Advisor
Associate Professor, College of Engineering
Adjunct Faculty, School of Computer Science
ACI-REF Virtual Residency 2016
Sunday August 7 2016**





Lore vs Data

At the end of this session, we're going to go around the room, and each of us will:

- a. say whether you've done research facilitation before;
- b. if so, tell a story about a research facilitation experience you had and what you learned from it.





Some History at OU

- In 2001, even before we founded the OU Supercomputing Center for Education & Research (OSCER), I was already going around to researchers and helping them.
- In the early years, I did “rounds,” where I’d go to someone’s office for an hour a week to help with the computing- and/or data-intensive aspects of their research.
- Once we got to 20 different groups getting rounds each week, we started to run out of Henry-hours, so we switched to a help session approach, where I’d do 3 hours a week in a PC lab, so I could help multiple people at a time.
- Then, one of our operations team members started showing up and listening in.
- Then, he started doing some of the facilitation.





History at OU (cont'd)

- Then, other OSCER operations team members started doing it.
- Then, I stopped doing it and they were doing all of it.
- Then, they switched to an ad hoc approach, where people can make an appointment with an OSCER team member to meet either in the researcher's office or in one of our offices.
- Now, we're switching back to regularly scheduled help sessions.





Goal

- Get them as productive as possible as quickly as possible.





What Are We Asked to Do?

- Beginner: Teach them basic Unix commands; show them how to use a batch system.
- Intermediate: Help them deploy (or deploy for them) community software, either in their home directory or in a central software repository.
- Advanced: Help them parallelize their code or otherwise optimize it for the platform they want to run it on.
- Guru: Help them design the project; identify the right resources and how to get access to them; co-author the grant proposal; co-author the publications.





What Don't We Do?

- We don't have to become experts on their research domain -- but we do have to become sufficiently knowledgeable that we can have an intelligent conversation about it.
- We don't have to be experts on STEM -- but we do have to become experts on how STEM research is done.
- We don't have to write their code for them -- they're better served if we **teach** them how to write the code.





Lore vs Data

Let's go around the room, and each of us will:

- a. say whether we've done research facilitation before;
- b. if so, tell a story about a research facilitation experience you had and what you learned from it.





OK Supercomputing Symposium 2016



2003 Keynote:
Peter Freeman
NSF
Comp & Info Sci & Engr
Assistant Director



2004 Keynote:
Sangtae Kim
NSF Shared
Cyberinfrastructure
Division Director



2005 Keynote:
Walt Brooks
NASA Advanced
Supercomputing
Division Director



2006 Keynote:
Dan Atkins
Head of NSF's
Office of
Cyberinfrastructure



2007 Keynote:
Jay Boisseau
Director
Texas Advanced
Computing Center
U. Texas Austin



2008 Keynote:
José Muñoz
Deputy Office Dir
Sr Sci Advisor
NSF Office of
Cyberinfrastructure



2009 Keynote:
Douglass Post
Chief Scientist
US Dept of Defense
HPC Modernization
Program



2010 Keynote
Horst Simon
Deputy Director
Lawrence Berkeley
Nat'l Laboratory



2011 Keynote
Barry Schneider
Program Manager
National Science
Foundation



2012 Keynote
Thom Dunning
Director
National Center for
Supercomputing
Applications



2013 Keynote:
John Shalf
Dept Head CS
Lawrence
Berkeley Nat'l Lab
CTO, NERSC



2014 Keynote:
Irene Qualters
Division Dir
Advanced
Cyberinfrastructure
Division, NSF



2015 Keynote:
Jim Kurose
Asst Director
Comp & Info Sci &
Engr Directorate,
NSF



2016 Keynote:
Dan Stanzione
Exec Director
Texas Advanced
Computing Center
U. Texas Austin

FREE!
Wed Sep 21 2016
@ OU

Reception/Poster Session
Tue Sep 20 2015 @ OU
Symposium
Wed Sep 21 2015 @ OU



ACI-REF Virt Res Overview
ACI-REF Virt Res 2016, Sun Aug 7 2016

Thanks for your
attention!



Questions?

hneeman@ou.edu